Fil

Toronto Office

The Province of Alberta

IN THE MATTER OF "THE NATURAL GAS UTILITIES ACT"

—and—

IN THE MATTER OF an Enquiry into Scheme to be adopted for Gathering, Processing and Transmission of Natural Gas in Turner Valley

408

G. M. BLACKSTOCK, Esq., K.C., *Chairman*

Dr. E. H. BOOMER, F.C.I.C., *Commissioner*

Session:

CALGARY, Alberta June 11th, 1946

VOLUME 83

I N D E X

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E X H I B I T S

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C-1-1 10 A.M.

Corrections
Discussion re filing copy
of Edmonton Order.

VOLUME 83

Tuesday,
June 11, 1946.

MR. STEER: Before my friend begins, Mr. Chairman, although I do not suppose it is a matter of any importance but I notice that page 6583, there is an error in the transcript with regard to a question that Mr. Harvie asked Mr. Brownie, where it is reported that he asked: "I wonder if I might ask Mr. Brownie, did you use the same figures as you used formerly?", the question I think was: "Are those the same figures as you supplied to the rest of us?"

MR. HARVIE: Yes, that is correct.

MR. STEER: Of course Mr. Brownie has given certain figures in his Exhibit 54 and at the request of Mr. Fenerty he supplied new figures by a letter of May 10th, which is marked as an Exhibit.

MR. HARVIE: It will be in order to change that.

THE CHAIRMAN: Is there anything further to be said about the propriety of filing in this Hearing a copy of the Order in reference to the Edmonton situation?

MR. STEER: I have no objection to it being filed, although I take the position it is not relevant. However, I have no objection to a copy of the Order being filed.

MR. CHAMBERS: I think it is wholly irrelevant and I take objection to it being filed. We are not trying the Edmonton rate base.

THE CHAIRMAN: I think it is irrelevant and can afford no assistance whatever to anyone in this Hearing. You cannot compare the situation with respect to Edmonton with that in respect to Calgary, so I must rule that it

cannot be filed.

All right, Mr. Chambers.

MR. CHAMBERS: When we rose yesterday, sir, I just came to that phase of the matter of the valuation of Madison's property which has to do with the manner in which the existing depreciation should be arrived at.

Now from what I said yesterday, there are obviously various terms or kinds of depreciation that are talked about under different circumstances and I propose briefly to examine those in relation to this matter, and first I want to advert to the question of "book depreciation".

Now all of the witnesses, in my submission or in my understanding, who dealt with this matter, namely, Hill, Hamilton and Stewart, were unanimous in the view that the amount of depreciation entered, or written up, in the books of the Companies, prior to regulation, that is property is now under regulation, affords no proper measure of what should be deducted from the cost or value of the property new.

And Hill deals with the matter in Volume 22 and Volume 23 and I have given the reporter a notation of the pages:

Hill:

Vol. 22 pages 1772-1783 (particularly p.1775)
Vol. 23 pages 1800-1802.

And Hamilton, in his Exhibit 125, says this:

"I should perhaps say here that in my view the depreciation actually recorded on the books of the company is not material, and I should have felt it proper to recompute depreciation whether the booked depreciation

"were high or low. The question is one of determining fair depreciation not the depreciation that may have been unnecessarily, or was not taken, but should have been taken by the company."

And then there will appear in the transcript the volumes and pages in which he refers to the matter:

Hamilton:

Vol. 47 pages 3680-3691
Vol. 50 pages 3893-3894
Vol. 61 pages 4837-4840
Vol. 58 pages 4597-4600.

And Professor Stewart in his Exhibit 132, says this:

"Where the accounting procedures of the company have not been subject to regulation, that is, in the case of a company which is being brought under regulation for the first time, it cannot be assumed that the provision made for depreciation accurately, or even closely, reflects the realized depreciation. Under these conditions the records of the company cannot be used to measure the depreciation to be allowed in determining the rate base."

And the volumes and pages follow:

Stewart:

Vol. 56 pages 4450-4455,
Vol. 57 pages 4573-4574.

And I say, sir, that in any event the amount of depreciation entered by the Company in its accounts prior to regulation is no evidence, or indication,

whether such amounts were earned or received by the company over and above, or at the expense of, a fair or any return to the shareholders in those years.

THE CHAIRMAN: They may not have been earned, Mr. Chambers, but they have been received.

MR. CHAMBERS: Well they may have been received but at the expense of something else.

THE CHAIRMAN: Quite true.

MR. CHAMBERS: Oh yes, and that is what I say, whether they have been earned over and above the return to the shareholders or at the expense of that return.

THE CHAIRMAN: That is right.

MR. CHAMBERS: Certainly the Company got this amount of money; otherwise it could not write up the depreciation.

THE CHAIRMAN: Quite.

MR. CHAMBERS: And then I merely referred to two decisions. I will not quote them but they will appear in the transcript:

See also: Board of P.U. Commissioners v.N.Y.Telephone Co. (1926) 271 U.S. 23,
70 L.ed 808.

West v. Chesapeake etc. Telephone Co. (1935) 295 U.S. 662,
79 L.ed 1640.

And that is all I propose to say about the matter of "Depreciation".

Then I come to the matter of "Observed Depreciation".

The amount which this Board is to deduct from the cost or value new of the properties now being regulated for the first time is sought, I submit, for the sole and only purpose of arriving at a present day

valuation or appraisal of second hand or used properties. The properties have been used. If built now, we would not be concerned with "Accrued Depreciation".

In other words, sir, it is my submission, that the Board should seek to ascertain the value new of the used and useful properties and assess to what extent their present actual is less by reason of these things:

(i) wear and tear and decay,

(ii) inadequacy or excess capacity,

and by that I mean if the plant is too big for the job which has to be done, that is obviously an item, I submit, to be taken into consideration in assessing depreciation, and:

(iii) obselescence,

and to what extent these factors have been overcome or lessened by maintenance.

In other words my submission is that the depreciation to be assessed by the Board at this time is "Depreciation" or loss in value as defined and explained by these parties that I have already referred to:

(i) Mr. Justice Hughes in the Lindheimer Case.

(ii) As defined in the definition of The American Society of Civil Engineers,

to which I referred yesterday.

(iii) In the sense that it is referred to by Professor Stewart,

which I quoted yesterday. (Exhibit 132)

(iv) And in the sense that Whitten & Wilcox sets out,

in the quotation which I mentioned yesterday, and:

(v) Also in the quotation from the Dominion Association of Chartered Accountants.

In other words, I submit, sir, that

it is "Depreciation" or loss or decline in value which the Board is to assess and not some hypothetical amount which is assumed or presumed would or should have been set up to date for amortization of the value or cost of a new plant.

What the Board should or is to determine is, I submit, to what extent the actual physical plant now there is less valuable than though it were a new property.

Now I suggest, sir, that the uncontradicted evidence is to this effect:

(1) that the properties valued in Hill's Exhibits 59 and 60 are used and useful for the public utility undertaking.

(ii) That they were thoroughly examined, inspected and tested by Hill;

(iii) That they were properly and efficiently designed, constructed and installed.

(iv) That they were exceptionally well maintained.

Mr. Hamilton made some suggestion they have been too well maintained.

(v) That the capacity or size of the installation was not in excess of the requirements of the business.

See Exhibits 59 and 60.

Hill's evidence at: Vol. 21 pages 1616-1618.

Now Hill says this, in effect:

(1) that the property was well designed and used and useful and that, if he had been reproducing the system new, he would only have changed the boiler house and the Seaboard System.

Vol. 21 pages 1616-1618.

And then he also said that:

(ii) There was no obsolescence in the gathering lines:

See: Vol. 21 pages 1619-1629
Vol. 21 pages 1670-1676
Vol. 22 pages 1688-1692
Vol. 22 pages 1755-1759.

He said:

(iii) That the pipe lines had an over-all life expectancy of 50 years and had had a weighted average expired life of 7 years.

Exhibits 59 and 65 -

Vol. 20 pages 1540-1543
Vol. 20 pages 1559-1562.

Then he also said:

(iv) That he heavily depreciated the heaters and boilers on the gathering system on account of their age:

Exhibits 59, 60 and 66 -

Vol. 20 pages 1548,1562-1578
Vol. 21 pages 1630-1632
Vol. 23 pages 1789-1790.

And then: (5) he says:

(v) That he also heavily depreciated the 6 old boilers in the steam plant as their remaining physical life was not more than 10 years.

Exhibits 59 and 60.

Vol. 20 page 1548
Vol. 20 pages 1578-1579
Vol. 20 page 1581
Vol. 21 page 1653.

Now turning for a moment to what Mr. Stevens-Guille said, and he stated:

(i) that the properties valued by Hill (in Exhibits 59 and 60) were used and useful and properly designed.

Vol. 24 pages 1910-1934
Vol. 25 pages 1945-1954
Vol. 25 pages 1970-1978
Vol. 25 pages 1982-2016
Vol. 43 pages 3325-3342
Vol. 45 pages 3516 et seq.
Vol. 45 pages 3528-3529.

And then he also said:

(ii) that the wrapping on the pipe lines was necessary due to hot spots:

Vol. 45 pages 3514-3516.

And he also said:

(iii) that the compressor equipment was designed to satisfy the Gas Company's requirements.

Vol. 45 page 3507.

In other words, the fluctuation in the market or the seasonable market.

Then he stated:

(iv) that the Madison gathering lines were designed to carry the full Calgary load,

Vol. 44 pages 3424-3426
Vol. 44 pages 3433-3434
Vol. 44 page 3444
Vol. 44 pages 3532-3533.

And (5) he also said:

(v) that the steam and power plants were necessarily acquired by Madison in order to insure continuity of service.

Vol. 25 pages 1950-1953
Vol. 25 pages 1982-1998.

Now turning to the "Purifying Plant" or the Scrubbing Plant. Hill depreciated the Girbotol installation by 5%, as he said, as it was practically new and the Seaboard unit by 50% as it had been installed between 1926 and 1929 and had only a remaining useful life of about 15 years.

Exhibits 59, 60 and 61.

Vol. 20 pages 1563-1580
Vol. 20 pages 1599-1604.

He valued the purifying plant at $503,793.00 which he allocated or distributed in this manner as follows:

To the Seaboard he gave it a new value of three hundred and fifty-six dollars odd, less a depreciation and made it two hundred and fifteen thousand dollars odd and that so far as the Girbotol unit was concerned, he valued that at two hundred and sixty-two thousand new and, after deducting depreciation, at two hundred and forty-two thousand dollars, and then the equipment that had joint use he valued new at seventy thousand, and I am giving you the round figures, and less depreciation that generally used equipment at forty-five thousand dollars; in other words the total he arrived at new was six hundred and eighty-nine thousand dollars and the depreciated figure was five hundred and three thousand dollars. You will find that in Exhibit 61.

	New	Less Depreciation
Seaboard	$356,514.00	$215,290.00
Girbotol	262,599.00	242,716.00
Joint use	70,715.00	45,787.00
	$689,828.00	$503,793.00

Exhibit 61,

Vol. 21 page 1608.

Hill stated that if he were now building an entirely new scrubbing plant he would design and erect an entirely enlarged Girbotol system which would involve an expenditure of about $121,000.00 in addition to the present Girbotol installation and the result would be a

more modern plant.

Vol. 20 pages 1600-1602.

Although at the same time he definitely was of the opinion that the Seaboard was used and useful.

Vol. 21 page 1619.

Then he also said that he did not apply the doctrine of a substitute plant in making his valuation but, in appraising the Seaboard unit, he did take into consideration the matter of operating expenses when valuing the Plant.

Vol. 20 pages 1602-1603.

(Go to page 6660)

Now I am going to refer to pages 1803 and following of the transcript. I have a summary of this. In answer to the late Dr. Boomer, Mr. Hill said this in effect:

(i) in considering value obsolescence should be taken into account,

(ii) obsolescence is an economic question which involves the net cost to the owner of owning and operating a piece of equipment as against the cost of owning and operating a piece of equipment of another type.

Then he also said to Dr. Boomer that if the concept of value (as distinguished from cost) is used by the Commission it would have to take obsolescence into account.

Then he also admitted that his valuation as shown in Exhibits 59 and 60 did not take obsolescence into account, as regards the Seaboard, except in a very minor way.

But he also said this that there was no functional depreciation, that is lack of ability to perform the operation in the Seaboard.

Then also during his evidence Hill said in effect and this is my submission:

(i) the Seaboard was not as efficient as the Girbotol in removing as much sulphur, nor does it remove any water although it was the best and the only commercial type available when installed.

Vol. 20 page 1546.

(ii) He says that the Girbotol process had been developed within the last 4 or 5 years,

Vol. 20 page 1546,

(iii) And he again said that he gave some effect to obsolescence in valuing the Seaboard as the heavy

depreciation he applied was not warranted by the physical condition of the plant itself.

Vol. 21 page 1710.

(iv) his estimates of depreciation were based on the physical lives of the plant and equipment irrespective of the life of the field.

Vol. 21 pages 1718-1719.

(v) And he said this, that if the life of the field is less than the physical life of the assets an adjustment would have to be made in his (Hill's) valuation as regards depreciation in order to reflect the depletion of the field.

Vol. 21 pages 1722-1723.

Now then I have dealt with observed depreciation and also book depreciation. Now I am going to discuss, sir, briefly a third type or a depreciation under a third label and that is accrued depreciation computed on basis of expired service life.

(c) Accrued Depreciation Computed on Basis of Expired Service Life.

Mr. Hamilton, in his Exhibits 124 and 125, recommends that the existing depreciation of plant be computed or assessed in the ratio or proportion that the actual throughput up to the end of 1943 bears to the estimated over-all throughput, past and future. That is in essence I think what his recommendation is.

He stated that if that basis, method or formula is applied to the reproduction cost new (as distinguished from adjusted historical cost new) obsolescence should also be taken into account as a special factor.

Exhibit 125.

Now while Stewart in his report (Exhibit 132) in effect states that the reproduction cost new should

(in fairness to the utility whose property is now being regulated for the first time) be used and although he admits that (generally speaking) in such cases the inspection method of depreciation is to be preferred yet where a wasting asset is involved and I quote from his Exhibit:-

> "the appropriate method of arriving at depreciation, at the time of appraisal, would appear to be to calculate depreciation as if the investment had been so transferred"

That is I take it at the rate at which the wasting asset served was used up.

Vol. 56 pages 4409-4412.

In addition to depreciation computed in that manner some further amount might fairly be deducted to take care of obsolescence.

Vol. 57 pages 4525-4534.

Now both Hamilton and Stewart agreed that a deduction computed on the so called service life throughput basis that I have outlined would not represent or accurately reflect the factual depreciation in the plant or equipment.

<u>Hamilton:</u>

Vol. 48 pages 3777-3781,
Vol. 49 page 3814.

<u>Stewart:</u>

Vol. 56 page 4417,
Vol. 57 page 4530.

Now I suggest, and I do not think there is any real controversy about it from the witnesses that the mere amount of the plant's past throughput does not affect its value or its serviceability for handling the remaining or the future throughput.

Vol. 49 pages 3813-3814.

Stewart admits that the present day value of the plant is more affected by the amount of the wasting asset which remains to be handled by it than what has been handled in the past.

<u>Hamilton:</u>

Vol 48 page 3779.

<u>Stewart:</u>

Vol. 56 pages 4415-4418.

Hamilton does say that the volume of gas still to be handled is only one criterion of the value or worth whileness of the investment at the present time.

Vol. 58 page 4630.

He also stated that the present value of the plant should not be influenced merely by the manner in which future depreciation under regulation is to be computed, allocated or charged.

Vol. 48 pages 3772-3773,
Vol. 49 pages 3800-3809.

And Hamilton further admitted that if conservation had been in effect to a greater degree in the past his accrued depreciation (on the basis of his formula) would have been much less.

Vol. 49 pages 3818-3820.

If the future throughput to be eventually and actually handled by the plant under regulation be more than the estimates that have been made by the engineers, the determination of present accrued depreciation, in the ratio that the past throughput bears to the total of the past throughput, the result I submit will be an unfair lessening of the present value of the property now devoted to the public service.

Vol. 48 pages 3767-3770,
Vol. 48 pages 3774-3775,
Vol. 49 pages 3809-3811.

And on the other hand if the error were the other way it would be unfair to the consumer. Furthermore the conditions as to throughput have altered substantially due to conservation and regulation - in the past a considerable amount of the throughput was flared and was non-revenue producing.

Vol. 49 pages 3811-3813.

And as a layman that can appreciate and understand this formula Mr. Hamilton has suggested, and many other people have suggested under the circumstances that this service life method is a formula which is supposed to be the way that property owners would from the very first depreciate their property if at the beginning of the picture they had all the information of the project in. In other words it is a method of writing off to revenue. Now if I submit that is what it is designed to achieve, then the conditions of operation must be assumed to be the same throughout the whole period.

The computation of present day existing depreciation in the plant on the basis of its past throughput results I suggest in a present day value that is arbitrary and based on accidents of the past and results in the future rates under regulation being increased or decreased due to the amount and character of business of the owner prior to regulation. So far as the Board is concerned in dealing with the matter today.

Vol. 49 pages 3803-3814.

My submission is that this Board's duty is to arrive at the present day value of a particular existing plant and that in arriving at that value (as part of the process

of valuation) the Board is to ascertain and determine the lessening or the loss in value of that plant below, or as compared with, a new plant.

An entirely new plant can do the job of course of handling the present reserves and its owners would have to be compensated through the rates for its capital charges.

And I say that the existing Madison plant is also capable of doing the same job and its owners are entitled to the same compensation except only to the extent that the existing plant (by reason of its age, condition and design) increases the over-all charges which would have to be paid if a new plant were installed for the first time.

And I further submit that the serving of a wasting asset is not the important test or principle to be kept in mind, but rather the fact that the plant is not new.

Its lessening in value to handle a resource under regulation cannot I suggest be in any way affected by what took place prior to regulation but rather that its present day value is to be gauged by its capacity, efficiency and its cost for doing a job under regulation as compared with an entirely new plant.

Stewart in Exhibit 132 (page 1).

And then alternatively I take this position that if in any event an arbitrary formula of allocation is to be used, I submit that:

THE CHAIRMAN: In other words you suggest as an alternative and one method which might be used straight line depreciation based on service life up to the date of regulation.

MR. CHAMBERS: Yes sir.

THE CHAIRMAN: And after.

MR. CHAMBERS: And after.

THE CHAIRMAN: Throughput.

MR. CHAMBERS: The throughput basis. That is not my submission.

THE CHAIRMAN: Oh no, that is an alternative.

MR. CHAMBERS: If the Board decides that there should be some formula applied.

THE CHAIRMAN: That is the more reasonable or the most reasonable of the arbitrary formula' that could be used.

MR. CHAMBERS: Yes, as an alternative;

(a) instead of past throughput being used, the computation should be made on the basis of, or in the ratio of the expired number of years to the total years of life, past and future until at least 1974,

(b) in any case, if throughput is to be used, the scrubbed gas throughput should be used throughout.

(d) <u>Substitute Plant Theory:</u>

Now I am going to deal briefly with this substitute plant and in that regard Hill said this:

(1) he appraised the plant as it existed,

Vol. 20 page 1596.

(ii) there was no part that should be built differently today except possibly the Seaboard unit and the boilerhouse,

Vol. 20 page 1596,
Vol. 20 pages 1600-1601.

(Go to Page 6667)

(iii) And then he did not apply the doctrine of substitute plant to any part of his valuation as the plant is there, functioning and doing the work it was designed to do. Volume 20, pages 1602-1603.

(iv) He said that in his value the Seaboard unit cannot be considered obvolete or due for replacement, I gather from that completely obsolete and should be replaced, unless the new expenditure could be recouped out of savings in a relatively short time.

Volume 20, page 1604.

(v) And then/also said in 1943 he would advise a buyer to acquire the scrubbing plant (inclusive of Seaboard) at his figure but would not today advise him to pay more than for what it could be duplicated.

Volume 21, pages 1645-1647,

(vi) He also said that the matter of operating costs of the present as compared with a new plant, is a factor.

Volume 21, page 1647.

Stewart, in his Exhibit 132, page 1, states:
"The value of properties may decline because of obsolescence; the extent of the decline in value being represented by the difference between the value of the then existing property new and the present value of an alternative new property."

He also stated that obsolescence might be gauged:

(i) either by considering the cost now of a

substitute plant,

or

(ii) by comparing the economics or expenses of buying and operating a new one as compared with that now there.

Volume 57 pages 4479-4480.

There is this thought, Sir, that occurs to me as a reason, that if depreciation is to be gauged now under these circumstances by an arbitrary formula on the theory that you are writing off over the years, it seems to me that that formula is designed to take care of all the depreciation, and if you are going to apply an arbitrary formula, whether applying it to reproduction cost or applying it to historical cost, that it in theory should take care of all kinds of depreciation including obsolescence.

Now I am going to refer again briefly to the case of

International Railway Co. v. Niagara Parks Commission.
(1937) 2 W.W.R. 641 (P.C.)
(1936) O.R. 195 (Ont. C.A.)

At the expiration of the period fixed in the original statute of incorporation the railway company elected, pursuant to the statutory agreement, to hand its property over to the Commission.

And, as we said yesterday, the railway was old and operated at a loss and it was admitted by all parties that it was outmoded and could not be made to pay due to the introduction and use of automobiles.

And the agreement, you will remember, merely provided that the company was to be:

"duly compensated for the railway equipment, machinery and other works."

And the Parks Commission in that case claimed that as the railway was entirely obsolete, for that reason it should be valued only on a scrap basis. And the evidence was that the company had suffered a loss in the last years, and that the business had never been made to pay.

The majority arbitrators found, page 649, that,

"during the last 13 years of operation the annual loss, after allowing for depreciation and after paying 5 per cent interest on the.....bond issue ranges from $25,980.42 in 1921 to $112,303.72 in 1931........ The evidence establishes beyond question that there was no prospect of any change in this condition for the future."

And then the report says,-

"at the time that it was handed over to the Parks Commission it was of no value for operation as a railway to.......the Parks Commission or to anyone else."

and that

"the railway as a whole when turned over.....was capable with proper maintenance of performing its functions as an operating railway and up to that time was in fact performing these functions"

but that

"it was obsolete as a whole in the sense that by reason of the changed conditions already referred to it became incapable of earning the cost of operating it and competing satisfactorily with other modes of transportation."

And I submit that this is only analagous because while in the railway case we have a statute whereby the company can turn over a piece of equipment, we have here a statute where the legislature in effect says, "We want any kind of equipment that falls within that definition to be used in a certain way in the future," and that is the equipment down there.

And Lord MacMillan at page 653 says this:

"The company have transferred to the Parks Commissioners their railway as a complete entity duly equipped and capable of performing its functions as an operating railway and in that sense capable of earning a profit. That it cannot in fact earn a profit owing to the development of motor transport is not a relevant consideration in assessing the compensation to be paid for the railway under the terms of transfer.

It follows that the alternative method of valuation which the majority arbitrators rejected must receive effect, and the company must be compensated on the basis of reconstruction cost less depreciation. Fortunately the majority arbitrators contemplated this possibility and have provided the necessary figures which they fixed, as they tell us, after making 'proper allowance for the age and obsolete type of the machinery and equipment'".

But the point I make is this, that while you may have obsolescence in the nature of the equipment itself, that that does not necessarily mean that you depreciate to scrap value or, in effect, scrap value.

And then I would like to refer to

McArdle v. Indianapolis Water Co.
(1927) 272 U.S. 400,
71 L. ed. 316,

Mr. Justice Butler at page 328 says:-

"There is to be ascertained the value of the plant used to give the service and not the estimated cost of a different plant. Save under exceptional circumstances, the court is not required to enter upon a comparison of the merits of different systems. Such an inquiry would lead to collateral issues and investigations having only remote bearing on the fact to be found, vis., the value of the property devoted to the service of the public."

Now, I am just merely referring those authorities to you, Sir, not with the idea of saying that there should be no allowance for obsolescence in the Seaboard, but I do suggest that this substitute plant theory cannot or should not be carried to the ultimate. I mean, the one that you have equipment there doing a job, and under circumstances under which new equipment put in would enable you to recover that extra cost in a very short time.

Now, I am going to touch on the working capital.

THE CHAIRMAN: Before you leave that, Mr. Chambers, supposing a new plant or a substitute plant can be operated half of the time.

MR. CHAMBERS: I think that is a factor, Sir, no doubt about it, and I am going to tie in my figures later on and will advert to that matter that was brought up here.

Now as to working capital.

For the reasons set forth at pages 7 to 10 of Exhibit 74, Kirkpatrick was of opinion that, omitting any allowance in respect of gas purchases, Madison should have a cash working capital of $100,000.00 as follows:-

5 years' operating expenses, he took on his estimate from the years 1944 to 1948,	$2,257,804.03
Which worked out at Yearly average of	451,560.81
And then he took 1/8 of yearly average operating expenses which gave him	56 56,445.10
And then he included an item of cash for contingency fund	43,554.90
Making a total of	$100,000.00

Now as regards the item if $43,554.90 he refers to:

(i) periods of peak operations throughout the year;

(ii) prepaid expenses including insurance and rate hearing expenses;

(iii) purchase of construction materials,

Exhibit 74 pages 7 to 10 and Schedule M 7 C.

Vol. 23 pages 1841 to 1847.

Vol. 24 pages 1885 to 1893.

Now, I would point out that Madison's operations are such that in some years it will be constructing capital additions and during those periods of such construction it will receive no interest during construction, as I understand the practice is that after you are brought once under regulation, this question of interest during construction disappears.

THE CHAIRMAN: Excepting that in other cases, Mr. Chambers, I have allowed a half year's interest on capital additions, irrespective of the time of the year which they were made. That is, if a capital addition were made in

November, that would be allowed.

MR. CHAMBERS: Yes sir, but is not that on the theory that on the average the additions will be in use for half of the year.

THE CHAIRMAN: That is right.

MR. CHAMBERS: But there is still this period, I suggest, during construction that would not be in that half year.

THE CHAIRMAN: And there might be periods when it would be much shorter than a half year.

MR. CHAMBERS: Undoubtedly, and other years you might run more than six months.

Hill, Kirkpatrick and Stevens Guille estimated $90,000.00 as a proper and fair allowance for materials and supplies. I have referred to the Exhibits and the pages.

Exhibit 59, page 18.

Exhibit 74, pages 5 to 7, and Schedule M.7 B.

Vol. 23 pages 1837- 1841.

Vol. 25 pages 1978-1982.

Vol. 45 page 3481.

Vol. 45 pages 3523-3527

Madison therefore asks that a total amount of $190,000.00 be included in its rate base for working capital as follows:

materials and supplies	$90,000.00
cash	100,000.00
	$190,000.00

Hamilton in his Exhibit 124 recommends a total of $140,000.00 as follows:-

materials and supplies	$ 93,134.16
cash for operating expenses	36,047.77
margin	10,818.07
	$140,000.00

His cash for operating expenses is arrived at in this manner:

He takes 1/16 of $230,000.00, which is the annual estimated payroll, which gives him	$14,370.00
And he takes 1/10 of $216,727.76, which are the other estimated annual operating expenses	21,672.77
And the two together gave him	$36,042.77

Now, Hamilton admitted that 1/8 of the annual operating expenses was a generally recognized amount to be allowed.

Vol. 50, pages 3866-3877.

He also admitted that the amount of working capital for the earlier years, or something analagous to it, should be increased on account of the rate hearing expenses, also of this prepaid Girbotol royalty.

Vol. 50 pages 3877-3881.

He also stated that his annual operating expense computation excluded the $20,000.00 contingency expense and he admitted it should be included in estimating the annual operating expenses.

Vol. 50 page 3881.

Now Zinder stated that the practice of the Federal Power Commission was to compute and allow an amount for cashing working capital at 1/8 of the yearly operating expenses

exclusive of gas purchases.

That is all I can say, Sir, about working capital.

Vol. 54 page 4227.

I come back now more or less to tie in the different phases to this question of valuation. In other words, I come to the fair present value of Madison's property acquired from Royalite.

It is my submission that under the statute the Board is to fix just and reasonable present rates and that, in the words of the McGillivray Commission, if fair present day rates are to be determined the first step is for the Board to arrive at a fair present day, 1944, value of the property which is used and useful in furnishing the service for which the rates are to be fixed.

(Go to page 6676).

Now recognizing that step as being necessary, the legislature has specifically, in Section 49 (1) of The Natural Gas Utilities' Act, empowered and authorized the Board, "for the purposes of carrying out any of the provisions" of the Act "to appraise and value the property of any utility".

Now then it is true that by sub-section (2) of that same section 49 - but it is still value I submit in section (1) "appraise and value" - but subsection (2) says this "that the Board in fixing or determining such value is not bound by either the original or present-day replacement costs or by any book value, "but may adopt any basis or formula - and I take that to mean any basis or formula of valuation which to it shall appear just and reasonable."

It is to be borne in mind, sir, that the sub-section does not relieve the Board from determining value and that in determining such value a just and reasonable basis is to be used.

THE CHAIRMAN: But the Board is to be the judge of that.

Mr. CHAMBERS: Oh yes, but with . . . . .

THE CHAIRMAN: With reason given.

MR. CHAMBERS: Yes.

THE CHAIRMAN: That would be simple.

MR. CHAMBERS: In other words I suggest that the sub-section (2) really incorporates what the Supreme Court of the United States did not in the Hope case but in the Smyth and Ames case.

THE CHAIRMAN: Did not the Smyth & Ames case say that the Board should consider all of the factors. Here we are told that we do not have to consider any of them.

MR. CHAMBERS: I do not suggest it goes that far. I say that you may do certain things, adopt any basis or formula that is just and reasonable. I do attach, as you can well understand, great weight to those words "just and reasonable" in the sub-section. But aside altogether from the legislation I say this legislature has given this Board wider discretion probably than it had before. And I say as a basis of what is fair and reasonable that the test is build this plant and do this job and the consumers, the people that are getting the benefits of the service pay us for it. I am a party that has a second-hand plant and on the basis of fair dealing between parties why should not I get some compensation or some rate base, except only to the extent that my second-hand plant will result in increased cost over a period of years to the consumer.

The section does not refer to determining either the original or the historical or adjusted historical cost of the property but rather to its appraisal and valuation.

Now in any event, sir, I do suggest that section 49, sub-section 1, while it uses the word "may" under the circumstances should say "shall" appraise and value. Sub-section (2) gives the Board wide discretion in arriving at value but it is still value and I will say this that it is conceivable that the legislature had this in mind, or that the Board may have it in mind in applying it, that they wanted to make clear that there are different rules or different principles apply in valuing or fixing a rate base during the whole period of regulation. What may be just and reasonable under these circumstances certainly would not necessarily be a just and reasonable basis if you were again fixing the rate base or deciding the rate base of this same

company 10 years from now.

THE CHAIRMAN: Would you pursue that a little further, Mr. Chambers? Having fixed a rate base in 1946 would you suggest that in 1956, if we unfortunately had a depression and deflation, that your rate base should then be revised to meet the conditions of that day, or if there was inflation by 1956 that the rate base should be revised upwards at that time?

MR. CHAMBERS: I can conceive, sir, that some change will have to be made and I will frankly say this, one of the disadvantages - and I am speaking in a relative sense - of regulation is that when we are once committed to regulation you do not enjoy the benefits of capital profit by reason of changed prices. By the same token you do not suffer the dips of deflation. If it were demonstrated by the course of events that we have struck a long, definite period of deflation I certainly think if the original rate base has been fixed at a time of a peak there should probably be some adjustment made, maybe not necessarily through a change of rate base but probably by an adjustment in the return. But the point I am making is this, that if you are going to apply in the first instance present-day rates of return in fixing present-day prices, you should apply them to present-day facts be they high or low.

THE CHAIRMAN: Then, Mr. Chambers, assume that the Board should decide that original cost less observed depreciation was the proper basis on which to fix the rate base that would represent your invested capital.

MR. CHAMBERS: Yes.

THE CHAIRMAN: Then if you had deflation would you be

satisfied to have it reduced below the amount of capital you had invested?

MR. CHAMBERS: Again, now, I have not thought the thing through carefully but I have recognized that there is a point there and it seems to me that probably the rate of return is the way to handle it. I will admit this frankly, sir, and Professor Stewart raised it, the Board in fixing or if we are going to adopt a method and a rate is fixed in the same way as the laws of the Medes and Persians, there is no change, we have to take into consideration whether you are fixing a price based on a temporary peak. But I am going to deal with that phase of it too.

THE CHAIRMAN: I think you would have a perfectly proper and just cause of complaint if the rate base was fixed, say let us assume you are a new company and there were no old assets to be valued. Your rate base would be the amount you spent today for your plant. At the moment it seems to me it would be quite unfair if in 10 years values had dropped that you should suffer a loss. The converse of course I do not need to mention. You can see it quite plainly. I am just . . . . .

MR. CHAMBERS: I appreciate you are giving me your reaction and the things you are thinking about, because I have thought about them too. You can see that other Boards have thought of the same question. We had that old rule in the United States at one time and they got around it by having a valuation every time you had a Hearing, which is not altogether a satisfactory way.

THE CHAIRMAN: Perhaps the question is academic, so far as I am concerned, because by 1956 there will be someone

else sitting in this chair. I know that.

MR. CHAMBERS: I know, sir, but I know you are interested as we all are in getting some degree of certainty.

THE CHAIRMAN: Permanence.

MR. CHAMBERS: And proper procedure.

MR. HARVIE: We are hoping we will still be able to quote you.

MR. CHAMBERS: Madison submits that the section goes no further than the rule laid down in Smyth v. Ames and that sub-section (2) certainly is not in terms sufficiently wide, clear and unambiguous to authorize the confiscation (direct or indirect) of the property devoted to the service of the public.

There is at least nothing in the section which requires, or indicates that, the Board is merely to ascertain the mere cost of the property.

I therefore submit that (in valuing the property for the first time after the institution of regulation) the Board should ascertain its present fair value in accordance with those principles of fairness and justice and of value that have been recognized and followed in this country and in England for many years.

I submit that the profits earned, or losses sustained, or the amounts paid for the property, by its owner throughout the last 25 years have no bearing whatsoever on its present-day value.

The evidence is clear that the present-day cost of replacing the property new is substantially - and I am referring to 1943 - even to the extent of 25% greater than the amount actually spent in its construction.

Furthermore the evidence clearly shows that the value of a dollar expended in the past years is worth (by all standards of comparison) far more than the dollar spent in 1943 or since.

THE CHAIRMAN: Except you do not get as much value for your dollar today as you did in 1939.

MR. CHAMBERS: No, that is the very point I stress, that the value of the dollar in 1939 was worth far more than it is today.

Now for the matter of the record I would like to refer to the Index Prices for Producers' Goods as shown by:

(i) The Canada Year Book 1943-4 page 786, and

(ii) The Prices and Price Indexes published by the Dominion Bureau of Statistics March 1946, Vol. 24, No. 3, page 3.

I propose to leave that with you, sir. They show this - and these are Producers' Goods I am talking of now, that in 1913 it was 67.7, that is just prior to the last war and in 1920 we were up to 164.3.

THE CHAIRMAN: Pardon me, the noise distracted me. What year was taken as 100?

MR. CHAMBERS: That was 1926 I think. Yes, that is right. 1922 it had dropped back to 96.9. In 1926 it was at 100. I am not going through all the years. We come to 1933 and we are down to 63.1, which was down below what it was prior to the first War. Then from 1933 it progressively increased and in 1939 it was 70.4; in 1943 it was 95.1 and these are the later figures that I did not have when Professor Stewart was in the box, but I will leave them with

you. In 1944 it was 99.9; in 1945, 100.4; January 1946, 101.5; February 1946, 102.6 and March, 1946 102.8.

THE CHAIRMAN: And what is the 1939 figure?

MR. CHAMBERS: 70.4.

THE CHAIRMAN: So that you have an increase of over 30% between 1939 and the present time.

MR. CHAMBERS: Yes for 1946.

Now I submit that the following are significant factors which should be given serious consideration by the Board in valuing the property in question and it has to do with this, to assess in a general way whether we are on a temporary peak, taking 1943 as the period,

(1) That the 1945 prices are higher generally than the 1943 prices, which does not apply only to producers' goods but it applies to everything, which is, I submit, also a thing for consideration.

(ii) that Hill did not (in his 1943 valuation) give full effect to war conditions.

(Go to page 6683)

(iii) That the 1946 prices are still higher than, considerably higher than the 1943 prices.

(iv) That the 1941 index of 83.6 is less than the average of 86.1 for the period, 1922-1943;

(v) That the 1943 index of 95.1 is less than the average of 98.2 for the period 1922-46.

THE CHAIRMAN: Are you suggesting that the Board might be obligated to consider whether or not 1943 reached a new level and that 1943 might conceivably be the 100?

MR. CHAMBERS: Yes, except this, Sir, I think you have to allow something because, unless the change is too great in the future, whatever you fix now, unless the changes up and down are large, it probably will continue as the "prudent investment", but I say this, that if there is a permanent cycle of a radical change, that any Board would be warranted in overhauling it.

THE CHAIRMAN: It would be very difficult for me to give reasons why I came to that conclusion.

MR. CHAMBERS: Then the next factor is:-

(vi) That the period of extreme depression, in the 1930's, is included in the 1922-43 period and in the 1922-46 period, and

(vii) that controls during the war tended to retard wage increases.

Then I also refer to the discussion which I had with Professor Stewart which is found in Volume 56, pages 4385-4390.

And admittedly the indexes with respect to

"Producors Goods" arc applicablc to materials of thc kind that comprisc thc plants to bc valucd by thc Board.

Volumc 56, pagc 4385.

Now I think another significant factor in this very point wc havc boon talking about is the index prices for labour, and it is common knowledge, I suggest, that the Board should take judicial notice of this that we are not yet settled so far as wage rates are concerned.

THE CHAIRMAN: Except in the case of Public Utility Commissioners.

MR. CHAMBERS: And the Rules of Court which give us costs.

And again I refer to the Canada Year Book, 1942, at page 711, and also the Canada Year Book, 1943-44 at page 731, and here are the wage scales, and I suggest that the wages are of interest for two reasons, because they have some bearing on the producer's costs of his goods and they also have a bearing on the cost of installing the producer's goods.

If we take 1913, the wage index was 54.9, again 1926 was, as I understand it, the 100, no, according to 1926 which I have here it was 99.4, but anyway in 1913 it was 54.9:

1913	54.9
1921	95.9
1923	98.6
1926	99.4
1928	102.7
1930	105.2
1933	89.6

still considerably higher than 1913.

1937	101.8
1939	105.3
1940	108.4
1941	119.2
1942	127.5

Now I will give more up-to-date figures in a moment, Sir.

Now I suggest that it is common knowledge that:

(i) since the cessation of hostilities further substantial wage increases have taken place,

(ii) other wage increases are imminent,

and that more or less they will be permanent. The wage indexes which I have read to you show that increases in general wage levels, while they may recede somewhat in a depression, they do not recede very much. In other words, throughout the whole period there is a progressive increase.

It is also common knowledge, I suggest, that;

(iii) as wage controls are being gradually relaxed wage increases are being effected, and

(iv) any lifting or removal of war sales and exchange taxes have been more than offset by increased wages and removal of the manufacturer's ceiling prices;

See Hill, Volume 74, pages 5991-5994.

See Stewart's evidence, Volume 55, pages 4361-4371.

Now Hamilton admits that the average value of the dollar from 1921 to 1943 was greater than that for 1944, and that the trend continues;

Volume 48, pages 3719-3720.

Volume 49, page 3852.

Stewart admits that costs or values are not likely to return to pre-war price levels.

Volume 55 pages 4371-4373.

Volume 56, pages 4390-4391.

As I have said during the course of our discussion this morning, my submission is that the rate of return to be allowed to Madison and the other utilities in its just and reasonable rates under the law is to be based on present day rates of return, that rate of return should, in a sense of equity and plain ordinary fairness, be based on, and applied to, present day values and dollars.

See discussion with Hamilton.

Volume 49, pages 3850-3855.

Volume 50, pages 3856-3864.

Now Stewart in his evidence and in his report also stated and, indeed, emphasized that in making its initial valuation under regulation:

(i) that the principle of tolerable security and avoidance of confiscation is in the general public interest

Volume 55, pages 4342-4351.

(ii) that the change in expectations by the institution of regulation should be fully recognized;

Volume 55, pages 4352-4354.

(iii) that the methods or practices followed and profits made or losses sustained prior to regulation are

irrelevant.

Volume 57, pages 4569-4570.

(iv) that the original expectations are changed by the institution of regulation and that, therefore, in the first instance, the Board should, in the absence of precedent, lean towards the owner on the generous side.

Volume 57, pages 4570-4572.

Now I think that fairly well summarizes the discussion.

Now while he favoured the reproduction cost new basis being used, in arriving at the initial rate base, Professor Stewart's concern was, as I understand it, that the prices used should not be those of a temporary peak period.

And I refer to the discussion in the evidence where that takes place:

Volume 55, pages 4373-4374.

Volume 56, pages 4421-4423.

Now, Sir, I would like to leave with you certain publications which I have, and the first is a booklet under date of March, 1946, published by authority of the Minister of Trade and Commerce, issued by The King's Printer, it was issued by him on April 30th, 1946. I refer to page 3, and page 4, which show price indexes from 1913 to March 1946, for producers' goods, and I have already read that.

And then I have another publication "Report No. 26" of The Department of Labour, issued in 1945, which is entitled:

"Wage Rates and Hours of Labour in Canada". Published by The King's Printer.

Then there are certain leaflets attached bringing the wage rates down to date, reprinted from the Labour Gazette of March 1946, and these show the prevailing general average wage indexes which are followed. 1939 was the 100, which is taken here.

1940	103.9
1941	113.1
1942	122.5
1943	132.8
1944	137.5

MR. FENERTY: I do not want to object to these particular publications, but I wonder what my friend would say if I said I wanted to leave with you a transcript of the proceedings leading to the Order given in the Edmonton Hearing of the Edmonton Gas Rates?

THE CHAIRMAN: There is this, Mr.Fenerty, that these are issued by The King's Printer.

MR. FENERTY: Yes, but I do not think they are evidence, and I say they are not evidence here.

MR. CHAMBERS: I am not offering them as evidence. I am offering them as a matter of information and they connect up with the discussions which we had with the witnesses.

THE CHAIRMAN: Yes. I have them, Mr.Fenerty.

MR. FENERTY: I am not objecting to them going in and, as a matter of fact, I have nothing to offer.

THE CHAIRMAN: Mr. Fenerty, if I tried to deal in my decision, in detail with all the points that Mr. Chambers has so ably raised, I would have to have another 81 volumes to

complete the Hearing.

MR. CHAMBERS: Now, Sir, I would like to refer to what the McGillivray Commission said in this connection, about present-day values and present-day worth.

Page 18 of the Commission Report, and he says:

> " One thing is certain, that if a rate-maker proposes to use present value in arriving at a rate-base neither original cost nor original investment will serve his purposes in the absence of evidence of unchanged conditions and of unchanged construction costs."

And I certainly submit the evidence is just to the contrary, that there has been a real change.

And again I would like to refer to the words of Lord Lindley, in the London County Council case, where he says:

> "Cost price is well known to be no real criterion of the value of an outlay on land."

Then I would also refer again to a statement from Wilson, Herring and Eutsler on Public Utility Regulation, (1938) at page 152, where he says this:

> "Prudent investment is a fixed, non-fluctuating rate-base, fair to all parties concerned. It can readily be ascertained and can be kept current merely through accounting procedure'

now he is referring there to a "prudent investment" but then he goes on to say:

> "Adjustments because of changes in price levels can be made, as they should be, in the rate of return."

Now, that is the one that I wish to refer to.

And there is another decision of which I spoke, and the Reporter has it:

"Division of Public Utilities v. Narragansett Electric Company, (1939) 27 P.U.R., (N.S.) 106 (R.I.) at 109.

And then I want to refer to the McArdle and Indianapolis Water Company case, (1927) 272 U.S. 400; 71 L. ed. 316, where Mr. Justice Butler at page 325 says:

"The present value of the land is much greater than its cost and the present cost of construction is much more than their reasonable original cost. In fact, prices and values have so changed that the amount paid for land in the early years of the enterprise and the cost of plant elements constructed prior to the great rise of prices due to the war do not constitute any real indication of their value at the present time..... Undoubtedly, the reasonable cost of a system of water-works, well planned and efficient for the public service, is good evidence of its value at the time of its construction. And such actual cost will continue fairly well to measure the amount to be attributed to the physical elements of the property so long as there is no change in the level of applicable prices. And.......it is true that, if the tendency or trend of prices is not definitely upward or downward and it does not appear probable that there will be a substantial change of prices, then the present value of lands plus the present cost of constructing the plant, less depreciation, if any, is a fair measure of the value of the physical elements

"of the property.................................

And then he goes on:-

"While the values of such properties do not vary with frequent minor fluctuations in the prices of material and labour required to produce them, they are affected by and generally follow the relatively permanent levels and trends of such prices."

(Go to page 6692).

MR. FENERTY: Is this another condemnation case or a rate case ?

MR. CHAMBERS: A rate case is my recollection of the McCardle case.

Now, sir, for the reasons which I have urged, it is my contention that the value of the property acquired by Madison from Royalite should be appraised and fairly valued (as at January 1st, 1944) at the amount of $2,442,207.53 computed as follows.

I am sorry I have not extra copies of these figures but they will appear in the record and they are not very long.

MR. HARVIE: I wonder if you would give me that figure again ?

MR. CHAMBERS: $2,442,207.53.

THE CHAIRMAN: You have a breakdown of them in your brief have you ?

MR. CHAMBERS: Yes sir, and I would like to read the depreciation value.

	Cost new	Depreciated
The physical plant etc.(Ex.59 p.22)	$2,356,116.00	$1,924,504.00
And then the items that were omitted from or to be adjusted in Exhibit 59 as per Exhibit 60 p.1	42,097.00	36,936.00
	$2,398,213.00	$1,961,440.00
And then I deduct additional depreciation re Seaboard (Exhibit 120)		77,047.00
	$2,398,213.00	$1,884,393.00
And those figures do not include anything for overhead so I now add 9% general overhead	215,839.00	169,595.00
Going value	200,000.00	200,000.00
Working capital	190,000.00	190,000.00
	$3,004,052.00	$2,443,988.00

	$3,004,052.00	$2,443,988.00
And then minor adjustments for overhead	50.00	5.00
	$3,004,102.00	$2,443,983.00
Adjustment re Girbotol prepaid royalty overhead	1,776.03	1,775.47
	$3,002,325.97	$2,442,207.53

See Exhibit 120, Stevens Guille - Vol. 43 pages 3311-3317.

Now Hamilton computes that if a $7500 annual saving were effected by reason of the scrubbing plant being converted to an entire Girbotol system the present capitalized value of such saving at 8½% would be $76,740.00 and it has been suggested that (on the basis of a reproduction cost valuation) a further reduction of that amount, or something like it, should be made. My figure does not allow any deduction in that respect.

Exhibit 124 - W.H. 2b.

Vol. 47 pages 3668-3671.

Now I have some figures here and I want to discuss the Girbotol and they may be hard to follow but they will be in the record.

Exhibit 59 p.22 shows depreciated value of entire scrubbing plant	$497,068.00
On the other hand Exhibit 120 p.2 shows this amount to be allocated (after adjustment in Exhibit 60) Seaboard Plant into two parts.	266,277.00
And Girbotol Plant	231,765.00
	$498,042.00

Now that same Exhibit 120 page 12 shows that the present Seaboard Plant items included in Hill's depreciated value (Exhibit 59) to the amount of $78,995.00 would be necessary and used and useful in converting the plant to an entire Girbotol unit.

The balance of the Seaboard system is therefore valued by Hill at $187,282.00 (exclusive of general overhead) as follows; and I just show how I arrive at from the Exhibit.

The entire Seaboard plant depreciated as shown in Exhibits 59, 60 and 120	$266,277.00
And I deduct from that less the portion required in any event (Exhibit 120 p.12) which leaves	78,995.00
	$187,282.00
Now Madison admits that there should be deducted for obsolescence (excluding the general overhead) which is shown in Exhibit 120	77,047.00
So that leaves for the S eaboard	$110,235.00
And now then assume a further amount for capitalized operating costs were deducted as per Mr. Hamilton.	76,700.00
	33,535.00
I do not say he suggests it, but he introduced it.	
And assume we add 9% for general overhead	3,018.15
In other words the remaining value of the Seaboard is	$ 36,553.15

Now I submit sir that a mere sum of $36,553.15 as a present value of equipment:

(i) installed within the last 20 years, (ii) which is still used and useful and actually functioning, (iii) which actually cost about $240,000.00; amounts to a valuation on a scrap value basis and is not warranted in view of the evidence as to its usefulness.

(note: the 240,000 is arrived at or estimated as follows:

Hill's estimate of Seaboard new	$428,396.00
Less 25% (Hill's estimate of present day cost over actual)	107,099.00
	$321,297.00
Less 78/266 of $\frac{321,297}{1}$ about	240,000.00)

Furthermore I submit that the annual saving of $7500.00 on which the capitalized figure of $76,700.00 is a rough estimate of an amount which is extremely small and which might, or might not, be realized in actual future operations.

It is also my submission in any case that if the accrued depreciation is to be computed or arrived at by th the Board on an expired service life basis that such a formula must be regarded as taking care of all types or kinds of depreciation, both physical and functional.

And that is my submission for a rate base of $2,442,207.53 as at January 1st, 1944.

Now I would like to deal with Mr. Hamilton's recommended rate base.

THE CHAIRMAN: Have you made any calculations as to the difference between the accrued depreciation on a throughput basis as compared with a straight line basis ?

MR. CHAMBERS: No sir, I have not, but there may have been somebody do that but I will do it.

14. <u>Hamilton's Recommended Rate Base.</u>

Hamilton recommended an amount of $1,573,688.40 for the physical plant and equipment as follows:

Adjusted historical cost new of fixed assets (Exhibit 124 W.H.7)	$2,135,797.80
And then he applied the accrued depreciation on throughput basis (W.H.7) - $546,219.16	
Addition depreciation ignoring salvage (W.H.6a) 33,800.00	580,019.16
And got a net of	$1,555,778.64
And then certain equipment which he valued at reproduction cost Exhibit 124 W.H. 7 24,320.08	
Observed depreciation (W.H.7) 6,430.32	17,889.76
	$1,573,668.40

Now that figure of $1,573,668.00 does not include working capital or the Girbotol prepaid royalty nor anything for going value.

Exhibit 125.

In addition Mr. Hamilton recommended $140,000.00 for working capital.

Exhibit 124 (Vol.2) page 11
Vol. 47 pages 3650-3660,

and the $21,501.00 for prepaid Girbotol royalty making a total of $1,735,169.00 as at January 1st, 1944, as follows:

Plant and equipment	$1,573,668.00
Working capital	140,000.00
Prepaid Girbotol Royalty	21,501.00
	$1,735,169.00

Vol. 47 pages 3660-3661.

Now Hamilton states:

(i) he would not quarrel with a variation of $100,000.00 or $200,000.00 either way.

Vol. 47 p. 3661,

(ii) He also stated that he had an open mind as to going value.

Vol. 66 pages 5313-5314.

(iii) He said that his accrued depreciation, computed on the throughput basis, should be revised in the light of the engineers' evidence as to the reserves.

Vol. 48 pages 3767-3770,
Vol. 48 pages 3775-3777.

(iv) And that the matter of rate hearing expenses will also have to be taken into consideration.

Vol. 50 pages 3877-3881.

And he deals with his computation of the percentages for arriving at his deduction for accrued depreciation in:

Exhibit 124, W.H.4, 5, 6, 11 and 12, Vol. 48 pages 3761 - 3762.

Now as I have already pointed out, he admits that the amount of the past throughput does not reflect the physical condition of the property nor its usefulness for the future.

Vol. 48 pages 3773-3774.

(i) And he admitted that his method was really one of pure accounting and not of valuation. I quote the reference:

Vol. 48 pages 3779-3781,

(ii) He also admitted that it substantially disregards past maintenance although its extent does affect the amount of future expenditures.

Vol. 48 pages 3776-3787.

(iii) He admitted that his resulting figure depends (to some extent) on whether past items of betterment were expensed or capitalized.

Vol. 48 page 3788.

THE CHAIRMAN: Did your rate base take into account those additional items that were introduced in evidence when we resumed the Hearing. No, it was this spring.

MR. CHAMBERS: You mean the new construction or do you mean the dollar items that I discussed with Mr. Hamilton ?

THE CHAIRMAN: Yes.

MR. CHAMBERS: No, I took Mr. Hill's reproduction cost. I claim as far as Mr. Hamilton is concerned if the Board were going to use historical costs that his historical cost was not

complete.

THE CHAIRMAN: Yours is purely on Hill's valuation.

MR. CHAMBERS: Yes, that is right.

Now, Mr. Hamilton also states in Exhibit 125 that in using or arriving at the historical cost of the property (as a means of fixing a rate base) the company is entitled to have its full construction costs included regardless of how its books were kept.

He also stated that:

(i) his historical cost figures did not include, but omit, an item of $69,957.00 the cost of certain intangibles in respect of certain lines previously taken up and re-located.

Exhibit 124 (Vol.1) W.H. 10, Vol. 48 pages 3717-3718.

(ii) And he also said numerous items of plant and equipment were included in his historical cost new at nominal amounts of only $1.00 and some that had been expensed were entirely omitted.

Vol. 49 pages 3837-3849.

Now Exhibit 146 shows items of equipment valued (gross) by Hill before depreciation to the aggregate amount of $172,383.06 which appeared at only $7,434.88 (new) in Royalite's books and which are included at that figure $7434.88 (less accrued depreciation) in Hamilton's recommended rate base.

See Hamilton's Evidence in this regard, Vol. 66, pages 5313-5398.

(Go to Page 6699)

While Hamilton admitted that all of the items listed in Exhibit 146 are now owned or used by Madison, shown in Volume 66, page 5333, he refused to include them as he cannot be sure, nor could anyone, he said, whether or not any of these items or amounts were intermingled with the costs of the other items which he had included.

Volume 66, pages 5333-5335.

He did, however, admit that the item of $52,958.55, shown in Group C of Exhibit 120, and those were costs expressed in installing or altering the Girbotol plant, might be taken into account as an item of going value. That was one item in Exhibit 120.

Volume 66, pages 5322-5325.

He excludes costs to the amount of $23,294.07, in Group "D" of Exhibit 146, incurred in effecting Project "A" as, and I am summarizing, this is certainly the view I take of what he said, he is suspicious whether or not they were provident from the standpoint of the dry gas business. Now, that is, I submit, a fair summary of his attitude in that regard.

Volume 66, pages 5325-5333.

Volume 66, pages 5335-5336.

But, on the other hand, Stevens-Guille's evidence makes it clear that the costs represented or reflected in Group "D" of Exhibit 146 were necessary, and if they were not made when they were, would have had to be effected under regulation at greater cost than if they had been built when they were built.

Volume 69, page 5676,

Volume 69, pages 5687-5688.

Finally he agrees that, in the absence of an arbitrary agreement, in order to fix a rate base of Madison's equipment on an historical cost basis it is necessary to make a lot of assumptions and speculations as to what the situation really was.

Volume 66, page 5339.

Volume 66, pages 5392-5396.

Now I mentioned that merely for this reason, we note in some of the books or in some of the cases in the United States, some of them criticize the re-production cost as hypothetical and uncertain, that after we come under regulation as compared with historical cost where your books are kept and records are kept under supervision, but I say under the particular circumstances herein involved, that the historical cost is subject to the same, if not a greater, degree of criticism.

Now, in the first place I submit that if historical or adjusted historical cost or prudent investment should be used as the basis of arriving at Madison's initial rate base, rather than a valuation of its property, the entire amount spent or incurred by Madison or Royalite should be included as having been prudently invested and that the word "prudently" should be interpreted in the sense of honesty and not in a post facto critical sense.

The items in Exhibit 146 should, therefore, be included.

And I further contend that if such a basis is to be used, that is the historical cost, that there should be nothing whatsoever deducted for accrued depreciation.

In that connection I refer to the order of judgment of The Public Utilities Board of this Province, dated November

18th, 1921, in the original Calgary Gas Company hearing which is a part of Exhibit 139.

The Board there states:

"The Board believes that in place of present value or reproduction cost now, with or without depreciation, be that cost ascertained by present prices or by the use of average prices over a term of years, it is far more reasonable in arriving at a rate base to endeavour as nearly as possible to ascertain the true investment in the utility. If a public utility is assured of a fair return upon a reasonably prudent investment, it should have little reason to complain."

And then he goes on:

"The Board thinks further that in view of the evidence as to the condition of the plant and in view of the principle adopted in arriving at the valuation of the system, that it should not make any deduction for depreciation."

And I also refer to one or two decisions and then I am through with this part about the original rate base. In a recent decision of

Springfield v. United Electric Light Co.
(1941) 39 P.U.R. (N.S.) 135 (Mass.)

at page, 139:

"This finding is supported by what has now become a well established principle of rate determination in this commonwealth that capital which stockholders have invested in a utility company and which in turn

"has been prudently invested by the company's management in useful plant with which to carry on the business of the company is entitled to a fair return."

....

"A return is permitted on the original investment regardless of the age of particular plant units so long as these units are used or useful and the obsolescence and depreciation of plant are provided for by reserves for depreciation on which no return is allowed but which may be fairly given some weight in determining rates."

And then I refer to Nash on Public Utility Rate Structures, a 1933 publication, at pages 286-7:

"If, as is common practice, accrued depreciation is deducted from cost of reproduction and not from actual investment in determining the rate base, any present advantages to the utilities of the reproduction method are problematical."

We will all agree with that.

"For the foregoing reasons it appears to be the judgment of many utility executives that they should concur in the preference of the commissions in using actual investment in rate cases, at least in those cases which will probably not be appealed to the courts where the reproduction method may be given greater weight. Investment for rate-base purposes should, of course, include

"not only the fixed but also the working capital necessary to carry on the business. Consideration should also be given to the cost of establishing and developing the Company's business and other factors commonly included in the term 'going value'. The courts have consistently held that the treatment of such items as a part of the rate base on which continuing return is allowed is more favourable to customers than the alternative higher costs of amortization within a limited period. It is not questioned that assurance that such costs will be provided for in some way is necessary for sustained credit."

And one more quotation, an older case in Pennsylvania, Borough of Verona v. Suburban Water Co. (1920 F) P.U.R. 942 (Pa.) at pages 945-947:

"The Commission has not treated historical and original cost as being the same. Original cost, one of the elements to be considered by the Commission in determining fair value, is the actual cost of the property. Historical cost may be defined to be the cost ascertained by applying to the property of the company the prices prevailing at the time the plant was constructed or properly acquired. It is only ascertained when original cost is not available. Historical cost, therefore, may be more or less than original cost and neither should be confused with fair value, as they are only elements ascertainable in the manner indicated, to be con-

"sidered by the Commission in reaching its determination. The cost submitted to the Commission in this case was original cost, so far as it was obtainable from the books of the company, and where original cost could not be obtained it was supplemented by historical cost. It is, therefore, s combination of the two. Book value is that which is placed upon the property of the company for accounting purposes. It may be the same or more or less than original or historical cost."

....

And this is what I want to refer to:

"Complainants contend that there should be deducted from historical cost as item for accrued depreciation. As we have stated, historical cost does not contemplate or have reference to the ascertaining of fair value, except as one of the elements to be considered. It is a fact to be established in the manner we have hereinbefore stated, and no deduction should be made for accrued depreciation, due allowance for that item should be made in reproduction cost."

Now I come to the Rate of Return.

Now, Ralph D. Baker, general Manager of James Richardson & Sons, Winnipeg, was called by Madison, gave evidence as to the fair rate of return which should, in his opinion, be provided for in the just and reasonable rates to be fixed by the Board to be charged by Madison for its services.

Now, Mr. Baker has had a wide experience with respect to the earnings of Canadian Companies and the sale of their shares and securities to the investing public.

And I submit in the light of that experience he is well qualified to speak, with first hand knowledge, of the factors which investors and those furnishing industrial capital take into consideration, and regard as risks, etc., in parting with their funds.

As to Baker's experience and qualifications, they are outlined in the record.

Volume 38, pages 2887-2890.

Baker presented and filed the following exhibits:

There was Exhibit 106, which was a submission recommending a 9½% net rate of return on Madison's rate base.

Volume 38, page 2891.

There was Exhibit 107, which was the statistical summary of the Bank of Canada, 1944-45.

Volume 38, page 2898.

There was Exhibit 108, which is the report of National City Bank of New York, April, 1945.

Volume 38, page 2898.

There was Exhibit 109, a letter from the Bank of Canada, to James Richardson & Sons, August 30th, 1945.

Volume 38, page 3899.

Now, in his Exhibit 106 Baker recommends, and is of opinion, that Madison's rate of return should be allowed or provided for at a net 9½% for the following reasons, as to why he comes to that conclusion:-

(a) that the institution of regulation, with the

adoption of the initial rate base as the fixed prudent investment, removes the possibility of any capital gain,

(b) that conversion to alternate ventures precluded - the undertaking is committed to the regulated enterprise which in effect precludes any change to any new industrial or synthetic gas business,

(c) that the capital assets, other than surplus depreciation, cannot be used as collateral for the financing of other enterprises on which the company might desire to embark,

(d) that the inherent risk of the field's being exhausted prior to the period now estimated or its output being displaced in the market by other fields or other fuels or other processes, atomic energy,

(e) that the proprietors are precluded from using the benefits of efficiency or business ingenuity in other lines of business,

(f) that the rate of return should, for the foregoing reasons, be somewhat higher than the average return earned by Canadian industry in general,

And another reason he gives,

(g) the general rate of return in Canada is higher than that in the U.S.

(h) that the Exhibits 107 and 109 show that the average net rate of return for Canadian enterprises was 9% for 1943,

(i) And that Exhibit 108 shows that the similar average return for American industry was 8.6%.

There is no evidence of it, I do not think Baker said anything about it, but I do submit that it is common knowledge that Western Canada interest rates, terms, and so on, have been on the average somewhat higher than Eastern Canadian rates on Eastern undertakings.

Baker was definitely of opinion that the risk inherent in Madison's business and the drawbacks referred to, entitled it to a return higher than the average return to Canadian business as a whole.

Volume 38, pages 2920-2925.
Volume 38, pages 2943-2944.
Volume 38, page 2957,
Volume 39, pages 2992-3010.

He was also of opinion that the war industries did not cause, or result in, the 9.04% return for 1943 as shown by Exhibit 107, that is as he felt that income taxes took care of that matter.

Volume 38, pages 2922-2924.
Volume 39, pages 2981-2986.

(Go to page 6708)

I N D E X

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E X H I B I T S

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I submit that an analysis of the figures given on page 11 of Exhibit 107 clearly shows that the average earnings of the companies there dealt with, for the years 1936 to 1942, both inclusive, was 9.47% as compared with the 9.04% for 1943. Now I submit, sir, that that comparison is significant, that on the basis of figures contained in the Bank of Canada's summary for those years and they are all given there in the same manner, if you take the average throughout the period 1936 to 1942, both inclusive, you get 9.47% as compared with 9.04% for 1943. Now attached is a summary of how I make that up from page 11 of Exhibit 107. I have not copies of it but I would like to touch on how I arrive at that. It will appear in the record. Page 11 of Exhibit 107 shows this that the total assets in those 678 companies in 1943 was 4,221 million and I take for the period 1936 to 1942, and I have added them together and a comparable figure is 27,999 millions. You take off the funded debt and apply the net income to those figures and you get these percentages to which I have referred. It is also interesting to note from the compilation that the percentage of cash dividends to total net assets, that is dividends paid in those yars , in 1943 it was 6.12% and in 1936 through to 1942, the average was 7.34%, obviously caused by the dividend policy.

Exhibit 107

	1943	1936-42
Total Assets	$4,221 millions	$27,999. millions
Funded debt advances, Government and other loans	970 "	7,243 "

	1943	1936-42
Shareholders' net capital (including surplus)	$ 3,251 millions	$20,756 millions
Net income to shareholders (after all taxes)	294 "	1,967 "
Cash dividends paid	199 "	1,524 "
Undistributed profits	95 "	443 "
% of net income to total net assets (Shareholders net capital)	9.04%	9.47%
% of cash dividends to total net assets	6.12%	7.34%
% of undistributed profits to total net assets	2.92%	2.13%
Stock outstanding	2,063 millions	14,514 millions
% of cash dividends paid to stock outstanding	9.65%	10.5%
% of net income to shareholders to stock outstanding	14.25%	13.55%

MR. FENERTY: So we will have it on the record, those figures you are dealing with are before income tax?

MR. CHAMBERS: After income tax.

MR. FENERTY: All those figures?

MR. CHAMBERS: Yes.

THE CHAIRMAN: That is after income tax of the company but not before . . . . .

MR. CHAMBERS: After income tax was paid.

THE CHAIRMAN: By the company?

MR. CHAMBERS: Oh yes.

MR. FENERTY: Oh yes. After income tax was paid.

MR. CHAMBERS: Yes.

THE CHAIRMAN: The income being subject to income tax in the hands of the investor.

MR. CHAMBERS: Yes.

Baker was also of the definite opinion that Madison's undertaking and assets were not of such a nature that a bond issue could be created and sold to the public or marketable at reasonably near par.

Vol. 38 pages 2948-2955
Vol. 39 pages 2992-2993
Vol. 39 pages 3004-3005

Hamilton did not agree with that view.

Vol. 61 page 4868.

Professor Stewart's view was that the method of the utility company's financing should be left to it but in fixing return the Board should proceed on the assumption the company would finance on the cheapest method reasonably available.

Vol. 57 pages 4506-4510.

While Professor Stewart thinks that, in general, the risks are greater in an unregulated business than in a comparable regulated business he bases that opinion mainly, I suggest, on the hypotheses that the regulated business is freed from the risk of competition.

Vol. 57 pages 4504-4506
Vol. 57 pages 4543-4544.

He also thinks that there is less risk in the business of a utility serving its market from several sources than in one whose supply is limited to one source.

Vol. 57 pages 4514-4516.

Now it is my submission, sir, that the enactment of section 67 of the Natural Gas Utilities Act very substantially and greatly increased the risk of all the utilities operating in Turner Valley including the wells that produce gas.

Section 67(1) definitely cancels and renders of no effect:

(1) the covenant of the Canadian Western Company, which is to be found in Exhibit 69, because Section 67 refers to the exclusive right to purchase as well as the exclusive right to sell.

I also say that that same section 67(1) cancels and renders of no effect:

(2) the agreement which existed between the Imperial Oil Refineries to purchase exclusively from Royalite its requirements of not less than 1 billion cubic feet per year, which are referred to in Exhibits 69 and 160.

I say with the situation we now have that Imperial Oil Refineries do not need to use gas at all and can use fuel oil or coal or anything else if it likes, whereas before it was committed to take 1 billion cubic feet as a minimum for a year from Turner Valley.

Section 67 specifically states that every contract or arrangement:

> "which restricts or reserves to any one person ....the exclusive right to sell or supply or to purchase or take delivery of natural gas to or for the markets available or to become available.......shall be null and void...... to the extent that such contract and/or arrangement restricts or reserves in manner aforesaid the right to sell or supply or purchase or take delivery of natural gas."

And in order that there may be no ambiguity or misunderstanding the subsection specifically brings within

the foregoing:

> "every contract made between the owner....of any scrubbing plant and any......corporation supplying natural gas whether by wholesale or retail to the ultimate consumer which......reserves to the owner .....of such scrubbing plant the exclusive right to supply natural gas to such....corporation....."

Sections 67(1) and 74 have, I submit, in their operation, relieved Imperial Oil Refineries Limited from its previous undertaking to take a minimum amount of natural gas from Turner Valley.

The refinery is therefore free to use fuel oil in its operations to the exclusion of all natural gas. It is now in the same position as any other consumer in the City of Calgary, the Burns' Plant or anybody else. They can use any kind of fuel they like.

It is also to be observed that, while section 67(2) authorizes the Board to review, amend and approve such contracts and arrangements, that is those contained in Exhibit 69, but the subsection specifically concludes with this prohibition, as far as the Board is concerned:

> "provided that no such approval, alteration or variation shall confer upon any party to such contract or arrangement any exclusive right of the kind referred to in subsection (1)".

The rate of return fixed or allowed by the McGillivray Commission in 1939 in computing the service rate for Valley Pipe Line Company, Limited, was 9½% which rate of return was in 1944 reduced by the Board of Public

Utilities Commissioners to 8% mainly on the ground, as I recall it, sir, of the increase in the income tax rate reimbursement for which was allowed as an expense.

That Board's order made in 1939 with respect to the retail rates to be charged by the Gas Company was predicated on an agreed 8½% net rate of return between the Gas Company and the City. That is my appreciation of the evidence. Exhibit 149.

Davies' evidence, Vol.71 page 5832.

Exhibit 169 consists of the published Balance Sheets and Profit and Loss Accounts of the Gas Company for the years 1938 to 1945 and I would like now, sir, to distribute an analysis which I have had made of those balances.

ANALYSIS OF GAS COMPANY BALANCE SHEET 1939 to 1945 INCLUSIVE NOW MARKED EXHIBIT 180.

Now I submit that these statements, Exhibit 180, which are compiled from Exhibit 169, show that the Gas Company enjoyed and received the following net rates of return for the respective years 1939 to 1945 inclusive:

Year	Net rate base	Net Rate of Return
1939	$5,202,318.50	9.38%
1940	5,234,881.64	8.35%
1941	5,344,402.84	7.66%
1942	5,418,438.06	9.78%
1943	5,443,998.52	10.80%
1944	5,195,475.53	9.98%
1945	5,170,402.94	12.45%

That is after allowing for income tax of 40%.

It is also to be remembered that the matter of rates, as between the City and the Gas Company, was the subject of negotiation between them as late as the year 1943 when the rates were agreed upon, and adjusted and confirmed by orders of The Public Utilities Board, namely:

Exhibit 151 Order No. 10166 - Jan. 6th, 1943. and

Exhibit 150 Order No. 9913 - Nov.26th, 1943.

and that under those rates the Gas Company's net rates of return have been 10.80%, 9.98% and 12.45%.

THE CHAIRMAN: That was only as to one item in 1943.

MR. CHAMBERS: The 2 cents.

THE CHAIRMAN: The last general agreement was in 1939?

MR. CHAMBERS: The 1943 was the 2 cent reduction.

THE CHAIRMAN: Yes.

MR. CHAMBERS: But I say that was the result of an across-the-table conference between the City and the Gas Company. I think it is common knowledge that the City had the accounts of the Gas Company available.

THE CHAIRMAN: I would not sign the Order. I refused to do that.

MR. CHAMBERS: The argument I intend to predicate on that is here were two parties dealing at arms' length and they agree on certain figures that resulted in certain net rates of return.

MR. FENERTY: Are you supporting it or criticizing it?

THE CHAIRMAN: I think at that particular time the arms' length, the arms were very short.

MR. FENERTY: I am still uncertain whether my friend is supporting or criticizing those figures.

MR. CHAMBERS: You will know before I am through.

THE CHAIRMAN: Then we will adjourn.

(At this stage the Hearing was adjourned until 2 P.M.)

MR. CHAMBERS: When we rose, sir, I had just referred to Exhibit 151, which was Order No. 10,166 of the Public Utilities Board, dated January 6th, 1943, and Exhibit 150, which is Order No. 9,913 of this Board, dated November 26th, 1943.

Now the point I am making is this, and I am not implying for a moment, that the Board agreed on any specific rate or charge of the Gas Company for its customers in the city after a Hearing but that these Orders, as I understand them, were really made as a result of negotiations between the two parties and irrespective of what the parties had in mind at the time, I say that under these orders or as a result of those negotiations and the rates as varied thereby, according to this computation from the balance sheets of the Gas Company, they have resulted in getting rates of return to the Gas Company for the three years, 1943, 1944 and 1945 of 10.80%, 9.98% and 12.45%.

And it is also to be noted that it was a condition of the 1939 order or negotiation, really that is a condition of the negotiation, that the city grant, and it did in fact grant to this company by by-law, a specific franchise as part of the deal and I refer there to Exhibit 149.

Now as to the question of the rate of return generally I would like to refer again to Wilson, Herring and Eutsler, Public Utility Regulation (1938) at page 154, where he says that the elements or component parts of fair return are:

(1) Pure interest upon capital employed;

(2) A premium or compensation for the risk to which capital is exposed by investment in the enterprise,

(3) a reward for the management of the property to the extent that such reward or compensation is considered

to be due those who have invested funds in the property.

And at Page 163 of the same text-book:

"Investors in public utilities should receive approximately the same rate of return as investors in comparable unrelated enterprises. This rate of return must be high enough to give the investor a fair return and the consumers good service but low enough to give the consumers reasonable rates."

Now that, I think, was also referred to and I think is set forth at length in the report of the McGillivray Commission at page 73 of its Pipeline report.

The McGillivray Commission at page 74 pointed out that the pipe line undertaking, or what is the Valley Pipeline, was in its opinion, more hazardous than the business of the Calgary Gas Company.

Now reverting again to Exhibit 107, which is the Bank of Canada Report, page 11, it shows that for the year 1939 the shareholders investment in the 678 companies of twenty-nine hundred and twenty-four billion dollars yielded a net return of two hundred and eighty-nine billion dollars or 9.5% after income tax.

The comparable net rate of return in 1943 was 9.04% and the 1932-42 average was 9.47%.

Now it is my submission, sir, that the risks or hazards in the business and undertakings now being dealt with by the Board are substantially greater than:

(1) that of Canadian Western,

(2) that of Valley Pipe Line Company,

(3) the average of the 678 companies referred to on page 11 of Exhibit 107.

I point this out, that the Canadian Western is in fact a well seasoned and established long-lived business.

It has an assured market and is free from gas competition from others in that market, that is in the retail market.

Its supplies of gas are not dependent on, or limited to, the Turner Valley or any other one field.

While the business of Valley Pipe Line Company was and is subject to the hazard or risk of the amount of the reserves and diminishing supply in Turner Valley, and of the hazard of the property being destroyed or part of it, by reason of some accident inherent in its existence, it nevertheless is assured of a market for whatever oil may be produced in Turner Valley. It is assured of a market to which to transport its oil.

Whereas I suggest, that the business of the Madison Company is not only subject to the uncertainty of the gas reserves and the operations of others in the field, over which Madison has no control, but also to the very definite and real hazard of not having an assured market for whatever gas there may be in Turner Valley.

In other words the institution of regulation has not eliminated, but has in fact created, the hazard of gas competition from other and perhaps cheaper or nearer gas fields. The Madison Company, and the other parties in the Turner Valley gas situation, has a risk at both ends, and I submit that the institution of regulation has not eliminated that risk.

It occurs to me that the Board cannot here, as a Board can in most utility cases, assure to Madison for the life of its undertaking a fair or specific rate of return,

because other factors which the Board cannot at this date control, must have a very important bearing on future events.

Now while the company is in the position where it cannot be assured a fair rate of return it is at the same time deprived of the benefit of capital appreciation or the opportunity of cashing in on fortuitous events.

Baker, in his Exhibit 106, was of the opinion that Madison's business was more hazardous than that of the average of the 678 companies referred to in Exhibit 107.

Now I would further submit that the rate or amount of income tax which the Company is allowed as an expense is irrelevant and beside the point if the rate of return is to be compared with and based on the net rates of return of other companies after payment of their income tax.

In other words we must compare like with like.

THE CHAIRMAN: Mr. Chambers, would you not think there are other factors that come into these matters you are now dealing with ? We will take the Gas Company, 8½% was fixed by the Board I think twenty years ago.

MR. CHAMBERS: Yes.

THE CHAIRMAN: There never has been a Hearing since that time. Now 8½% may have been perfectly proper then but it may be much too great at the moment but how can it be changed, unless someone comes and complains and unless we take the rate base and check it from the last Hearing down to the present time?

MR. CHAMBERS: All I can say in that regard is this, that, in the first place, the only reason why there has not been a Hearing is because the City of Calgary has not seen fit to have a Hearing. It has seen fit to have the rate fixed by

negotiation and all I am saying - -

THE CHAIRMAN: That does not prove that they are correct though.

MR. CHAMBERS: Now, sir, I do suggest this, that when you come to talk about a rate of return, you talk about a rate of return in this area, and you at once look around at other situations in the area and gas is more comparable than electricity for instance and you find, at least here are two parties that have dealt I suggest at arm's length because I think the officials of the City of Calgary have not been dominated by any ulterior motive, they have at least dealt with it in such a manner that the Gas Company has earned certain rates of return. Now the City must have done that with their eyes open and it is some evidence, I suggest, as to what is considered reasonable and fair in this area. And I think the very fact that they have not gone to the Board carries some weight.

THE CHAIRMAN: And consider the Valley Pipeline Company for a moment, its rate base has been overhauled each year now for the last three years.

MR. CHAMBERS: Yes.

THE CHAIRMAN: And on that last rate base hearing, those who appeared offered no objections to the retention of the 8½% and no evidence was offered to establish that it was too high and should be reduced, and on the other hand the evidence at the last Hearing was that the Valley Pipeline Company has a possible length of life of seven years.

MR. CHAMBERS: Yes.

THE CHAIRMAN: But on the evidence before me now, the evidence is that your Madison Company has a possible length of

thirty-three years.

MR. CHAMBERS: Possible but - -

THE CHAIRMAN: I agree there is a hazard but that is the evidence.

MR. CHAMBERS: But as I understand it - -

THE CHAIRMAN: And you are asking me to deal with it on the evidence.

MR. CHAMBERS: As I understand the Valley Pipeline Company, without competition, should last for seven years. Now I say that is a risk, that it is a short lived proposition, but this has a ten year or twenty or twenty-five years, providing some outside interference or factor does not come in and interfere with its present position and I do suggest that there is much more hazard of an outside factor interfering here than there is in the Valley Pipeline Company.

THE CHAIRMAN: And that might result in a still longer life for Turner Valley.

MR. CHAMBERS: But it may not be as profitable. Turner Valley may have a long life but the equipment there may not be used very much for a period of years.

THE CHAIRMAN: I have not any definite views on this - -

MR. CHAMBERS: No, I know, I know we are merely interested in it.

THE CHAIRMAN: But I am raising the points which occur to me.

MR. CHAMBERS: Yes, I understand. And I do submit, sir, that that estimate in the Bank of Canada report, those figures in the Bank of Canada report, take a cross section of all the companies in this country, all the substantial companies, - a large percent of them must of necessity be in Eastern Canada, -

and that the result as shown by these figures are as I have stated and they should have an important bearing here, I submit.

And I suggest further that the Madison business is not free from competition in that:

(1) its services may not be required by reason of gas from other fields;

(2) its services may not be required by reason of fuel oil and coal and electricity competition.

And I therefore submit, sir, that a net rate of return of not less than 9½% should be used and allowed in fixing the just and reasonable rates for Madison's services.

(Go to Page 6722)

I would like to point this out in the concluding part of my argument that whatever evidence there is, I submit supports the 9½% because there is no specific evidence as to other rates of return.

Now I would like to deal very briefly with the matter of Income tax.

THE CHAIRMAN: Before you leave that, Mr. Baker filed another Exhibit and I have forgotten the number of it, that showed rates of returns to companies in the United States and which showed utility returns at 6½%. Would you deal with that ?

MR. CHAMBERS: I do not think I deal with it specifically, but I do say this, the evidence is of course that the rates in the United States are lower than they are here generally speaking; not only public utilities but in others but I do say this and I will touch on it later that there is no statute in the United States that to my knowledge goes as far as our legislation does here and I am not saying that in any critical sense of the legislation. Most of the gas cases I have read deal with Gas Companies that have an assured supply or have the right to purchase an assured supply serving direct to customers in the cities or to other affiliated companies delivering in the cities and that there is not I submit outside competition as there is here in an isolated area compared to a small market. Outside of that I have no further information.

THE CHAIRMAN: I think I can promise you I am not going to tie you down to 6½%, beyond which I say nothing.

MR. CHAMBERS: Now the question of Income tax.

INCOME TAX

I would point out that the net rates of return are from 9.04% to 9.5% as shown on Page 11 of Exhibit 107 (Bank of Canada summary) which are net after payment of all income and excess profits taxes.

That is shown by Exhibit 109, the letter from the Bank of Canada.

The rates of return of the Canadian Western to which I have referred are also computed after allowing, as an expense, all such taxes.

Exhibit 169,

The 8% rate of return allowed the Valley Pipe Line Company Limited is also net, after providing for such taxes as items of expense.

Baker's recommended 9½% is predicated on such taxes having first been provided for as an item of expense.

Vol. 38 page 2914.

Professor Stewart admitted that in fixing a net rate of return for a public utility company the same should be tested by rates of return in other enterprises after allowance for income taxes.

Vol. 57 pages 4568-4569.

And I refer now to an extract from a book of Thompson and Smith - Public Utility Economics, published in 1941, and at page 547 it states this:-

"The first significant tax fundamental is that, under ordinary circumstances, taxes paid by public utilities to the support of government are a cost of production. This share - taxes - can no more be overlooked than can the wage bill or materials cost.....Taxes are a cost of production and in the long run must be included in the

prices charged for utility services and products."

Now I submit that having regard to the nature of the undertakings here in question and the hazards involved the rate or amount of income tax to be included, as an item of expense, should not be restricted to, or predicated upon, the hypothesis of a bond issue and the deduction of the bond interest as an item of expense.

Now Baker's evidence was to the very definite effect that the undertaking is of such a nature that the public would not buy the bonds except they were sold to yield very high interest rates.

Vol. 38 pages 2947-2966,
Vol. 39 pages 3004-3005.

And that although Hamilton referred to the fact that of the 53 utility companies listed in the 1945 Financial Post (Exhibit 111) 49 have a funded debt he admitted that none of these serve a wasting asset and I suggest it is apparent that the nature of their respective businesses is not as risky or subject to the factor of competition as is the case of the Madison Company.

It is also significant I submit that mining companies and oil and natural gas companies do not effect their primary financing by bond issues.

Canadian Western, a well seasoned utility company, has not a bond issue.

The Turner Valley operations have not been susceptible of financing by bond issues (except probably with heavy bonuses in isolated cases) and I submit that there is no magic power in the Board nor in The Natural Gas Utilities Act to change the inherent nature of a business into one that would induce the public investors to part with their money at low

rates - whether on bonds or shares or preference shares.

I further submit that the amount or extent of the income taxes to be allowed as an expense to Madison in fixing its rates should not depend on whether its shareholders happen to be individuals or other companies.

The test of the fair net rate of return is what those or other shareholders can realize over the years on their money in other similar lines of business.

The amount of taxes which Madison collects from its customers (as an item of expense) should not in fairness either to the customers or to Madison's shareholders in my view depend on the names that appear in Madison's share register.

The acid test I say is what the shareholder could do with his or its funds in other undertakings of similar risk.

Now I am going to deal with another phase and I do so because of a statement that was in the Utility Board's finding in 1943, the Valley Pipeline hearing. It is just a question of a reference in the Judgment in Galveston Electric Company v. City of Galveston.

(1922) 258 U.S. 388,
66 L. ed 678,
(1922D) P.U.R. 159.

In that case the original tribunal had allowed (but circuit appeal court had disallowed) as part of the company's operating expense, the amount of $16,254.00 paid by it during the year 1920 for Federal Income Tax.

Mr. Justice Brandeis, who delivered the judgment of the U. S. Supreme Court (on appeal from the circuit court) states (at page 684 L. ed) that the Federal tax in

question was that imposed by the Act of February 24th, 1919, ch. 18 which provided that, for any year after 1918, the corporation income tax should be 10% of the net income.

And this is what Mr. Justice Brandeis stated, and I am reading from his exact words, page 685:

"it is necessary to deduct from gross revenue the expenses and charges; and all taxes which would be payable if a fair return were earned are appropriate deductions. There is no difference in this respect between state and Federal taxes, or between income taxes and others. But the fact that it is the Federal corporate income tax for which deduction is made must be taken into consideration in determining what rate of return shall be deemed fair. For, under sec. 216, the stockholder does not include in the income on which the normal Federal tax is payable dividends received from the corporation. This tax exemption is therefore, in effect, part of the return on the investment."

Now I think that was a statement that was quoted in the Utility Board's decision in the Valley Pipeline in 1943. Now I would point out that Section 216 of the Federal tax statute there referred to provided that all taxpayers (both corporate and individual) should be entitled to exclude from their taxable income dividends received from a company which had itself paid normal taxes under the Act.

And I point this out that that law has since been changed and section 26 of the 1938 law provides that,

"in the case of a corporation the following credits shall be allowed.....(b) 85% of the amount received as dividends from a domestic corporation which is subject

to taxation under this title....."

And that is a similar provision to section 4 (1) (n) of The Income War Tax Act of Canada.

And I can perfectly see the reason for Mr. Justice Brandeis' statement in that regard when we examine Section 216. It was a special concession given to all tax-payers and I refer to the fact that under the Hope Natural Gas Case,

(1942) 44 P.U.R. (N.S.) 1 (F.P.C.)
(1943) 47 P.U.R. (N.S.) 129 (U.S.C.C.A.)
(1944) 51 P.U.R. (N.S.) 193 (U.S.S.C.)

The Hope Company was a wholly owned subsidiary of the Standard Oil Co (N.J.) see 51 P.U.R. (N.S.) 195 and therefore the dividends from Hope to Standard were not taxable in Standard's hands as to 85% thereof.

Nevertheless the Federal Power Commission (whose finding was upheld by the U. S. Supreme Court) included the full 40% normal Federal income tax as an expense in fixing Hope's rates.

That the Board is not entitled to take into consideration (as a factor in fixing the rate of return) the personnel of the shareholders is, I submit very clearly, exemplified by the judgment of Lord Thankerton in the Pioneer Laundry Case to which I referred yesterday, (1939) 3 W.W.R. at pages 572 and 573 where he states:

"Their Lordships agree with the Chief Justice and Davis J., that the reason given for the decision was not a proper ground for the exercise of the Minister's discretion, and that he was not entitled, in the absence of fraud or improper conduct, to disregard the separate legal existence of the appellant company, and to enquire as to who

its shareholders were, and its relations to its predecessors. The taxpayer is the company, and not its shareholders. Their Lordships agree with the reasons given by these learned Judges, and their application of the authorities cited by them, and it is unnecessary to repeat them."

In The Queen v. Vestry of St. Pancras (1890) 24 Q.B.D. 371 (which was cited by Davis J. in the Pioneer Laundry Case) Lord Esher states at page 375:

"If people who have to exercise a public duty by exercising their discretion take into account matters which the Courts consider not to be proper for the guidance of their discretion, then in the eye of the law they have not exercised their discretion."

And I submit that the true test is that which was applied by the British Columbia Commission in re B. C. Electric Railway Co., Ltd., (1944) 53 P.U.R. (N.S.) 438 (B.C.) at page 464 where it states:

"The return on investment must be sufficient and should be not more than sufficient to induce the investing public to provide the funds necessary for expansion of the business. Anything more than that is unfair to the consumer, anything less must result in curtailment of proper service. Utility business is normally expanding and if the return to the investor is not sufficient the funds necessary for expansion will not be forthcoming and proper service cannot be maintained."

(Go to Page 6729)

"the investor is concerned only with the return which reaches him either in dividends or in increase in equity in his property. How the return is calculated does not affect his readiness to invest. The net return to him in funds available for his ownuse is the controlling factor. Consequently, if taxes are to be deducted from the return, the rate of return must be raised compensate. The result to the consumer is the same in the end."

See also Pages 365 and 466.

And then I finally come to

In re Brooklyn Borough GasCo. (1944) 56 P.U.R. (N.S.) 1 (N.Y.) the shares or control of the company were vested in another company, Kappers United Company,(page 8). Nevertheless the Commission (page 47) allowed as an expense the full Federal tax of 40%, that was made up of 24% normal tax and 16% surtax.

In the East Ohio Gas Case (1944) 56 P.U.R. (N.S.) 73 (Ohio) the East Ohio Company was owned or controlled by another company. The Federal O.P.A. intervened and urged that Federal income taxes in excess of 19% the combined normal and surtax rate for 1939, should not be allowed as an expense. The Commission, however, allowed the full taxes as operating expenses.

THE CHAIRMAN: What about the Federal Power Commission, Mr. Chambers, in the Panhandle case that the increased income tax should be allowed as an operating expense but should be reflected in the rate of return.

MR. CHAMBERS: I beg your pardon?

THE CHAIRMAN: In the Panhandle case, before the Federal Power Commission?

MR. CHAMBERS: I do not recall that, but I will check it.

THE CHAIRMAN: I referred to it in my decision of 1943.

MR. CHAMBERS: I know that you referred to one but I do not think that was the case.

THE CHAIRMAN: It was the Canadian River.

MR. CHAMBERS: Yes, Canadian River. But my answer to that is, you must compare like with like, what do other companies do? How are they making out after paying the taxes?

THE CHAIRMAN: The only thing, Mr. Chambers, is if we give full effect to your argument that when there is a war and a period or distress then everyone must suffer except in a public utility company?

MR. CHAMBERS: No, I submit not, Sir, because the shareholder of a public utility company is subject to taxes when he gets his dividends.

THE CHAIRMAN: Quite true, but so is the shareholder in any other company.

MR. CHAMBERS: Yes, certainly, the more dividends he gets the more he has to pay.

THE CHAIRMAN: But the shareholder in a public utility company gets a bigger dividend, doesn't he?

MR. CHAMBERS: Not necessarily so.

THE CHAIRMAN: In his rate of return?

MR. CHAMBERS: No. I say that these other companies made all through the war over 9%.

THE CHAIRMAN: Oh yes, quite true, Mr. Chambers, but I also realize that the stock is worth $100.00 and is paying 9%, and you go to the market to buy it and you pay two hundred and fifty to three hundred dollars for it.

MR. CHAMBERS: Yes, but I do suggest, Sir, that the amount of dividend that happens to be paid "is not the thing to compare." It is what the shareholder, as the B.C. Commission says, he is interested in what he gets plus the addition to his equity.

THE CHAIRMAN: But if he gets a dividend that is nominal, and taking into account his capital, it might be only 3% of the amount of his vinvestment.

MR. CHAMBERS: But I do submit that the utility companies that have high rates of return, 8½% return, the shareholder does not necessarily get 8½% on his investment.

THE CHAIRMAN: Oh, well, you are in a different field altogether now. I do not care what dividend the public utility company pays. It is none of my business.

MR. CHAMBERS: Yes.

THE CHAIRMAN: It is what amount they are entitled to earn on the invested capital on the rate base.

MR. CHAMBERS: On the rate base?

THE CHAIRMAN: Yes, on the rate base.

MR. CHAMBERS: And I say that that should be taken on what the net returns of other companies are. It is true that other companies' net return is being reduced because of high income tax, and that obviously must affect the rate of return of the utility company, but I say that the evidence is, and that Bank of Canada statement shows, that even with all the high taxes that the net left is still about as high as it

was before the war.

THE CHAIRMAN: On book value?

MR. CHAMBERS: Yes, on book value. At least I will go this far, at least, whether it is on book value or what it is, and I say there is nothing to say whether that book value is high or low. Some obviously high and some obviously low. But that in any event Exhibit 107 is most important to show it before the war and during the war.

THE CHAIRMAN: And you want that rate of return on reproduction cost new, as of today's date?

MR. CHAMBERS: Yes sir, because I say that, not only from basing it on Exhibit 107, but I say when you look around at rates of return earned by other utilities in this area, since 1943, having regard to the risk, that my 9½% that I ask for is not unreasonable.

Now, as to the future depreciation.

Madison submits that as and from 1944 its annual depreciation to be provided for in its just and reasonable rates should be computed and allowed for as follows:-

Firstly, take its fixed depreciable assets, as whatever the Board decides is the value of the rate base, consisting of:

(i) its wet gas gathering system and compressors plants Nos. 1 and 3,

(ii) its residue gas gathering system which served the G.O.R.,

(iii) its scrubbing plant,

(iv) its boiler and power plants and water station,

(v) its repressuring system,

that those should be depreciated in the ratio that the scrubbed gas sales for the particular year bears to the estimated sales of scrubbed gas as and from January 1st, 1944, to the end of the life of the field.

And secondly, its miscellaneous equipment at the following annual rates:

(i) transportation equipment (other than fire truck)

1st year	25%
2nd year	20%
3rd year	20%
4th year	20%
Salvage	15%
	100%

and in that same classification of miscellaneous equipment we have

(ii) fire truck, depreciated 5% per year, because the evidence disclosed every time a new car comes out you do not get a new fire truck. It would be over so many years.

(iii) and then office machines depreciated at 10% per year,

(iv) office furniture, 5% per year.

I do not think there is any quarrel about those particular things.

See Exhibit 80 (M.10)

See Exhibit 79 (M.9)

The total estimated amount of scrubbed gas sales for the

life of the field as from January 1st, 1944, based on Dr. Katz' estimate in Exhibit 52 was, you will recall, 361.3 billion cubic feet or 345.5 billion cubic feet as from January 1st, 1945.

And then as I pointed out yesterday, these figures were subsequently adjusted by the Conservation Board after consultation with all the interested parties, as follows:-

As at January 1st, 1945,	342.5	billion cu.ft.
And then the actual 1944 sales were	15.4	"
That gives us a total of	357.9	"

as at the 1st of January, 1944, instead of the 361.3 which was mentioned by Dr. Katz originally.

Now the scrubbed gas sales for the years 1944 to 1948 are estimated, for depreciation purposes, to be:

1944,	I am giving the actual sales	15,458,237	m.c.f.
1945	(actual)	17,254,099	"
1946	the estimate is	17,099,100	"
1947		15,802,800	"
1948		14,457,000	"

And those figures include Bow Island storage as follows:-

1945 (actual)	744,628	m.c.f.
1946, there was an estimate in Exhibit 47 Table 2-A, and it was estimated that Bow Island would store that year	1,037,000	"
1947 as shown by the same exhibit	1,155,000	"
1948	1,037,000	"

and there is a slight downward estimate in Bow Island storage since then, and the material I have given there would be

found in Exhibit 55, also Table 1, Exhibit 176.

Madison suggests that capital additions made in any year should be both depreciated and carry a return for that particular year on 50% of their costs. I do not think there is any quarrel with that by any of the parties interested.

Madison further suggests that, for the purpose of annual depreciation, salvage be ignored as any amount now estimated therefor would at best be purely a guess which will in all probability have no relation to the actual net salvage which will be realized.

Furthermore, it is submitted that if a salvage allowance is now provided for or estimated, the equipment when fully depreciated and not further required in situ then can no longer be regarded as devoted to public service in that area but can be then removed and sold by the utility company as it sees fit.

In other words, the point I am making is this, that if you are going to charge up or leave to the utility salvage allowance, and that presupposes that the salvage belongs to the company to do what it likes with it, I submit that there is a reason behind it. Whereas, if the property is depreciated with no salvage allowance, that in fairness to the entire property, it is devoted to the public service in that area until the very last job is done, and I have in mind that it may be equipment as between companies and later on when it ceases to be used in one part and depreciated there, it can be used somewhere else in the Turner Valley picture.

In any event I submit that not more than 5% should be presently deducted as estimated salvage for depreciation purposes. In other words my suggestion is that the depreciation base for each year should be:

(i) the opening balance on January 1st.

(ii) 50% of the current capital additions for the year,

(iii) the other 50% of the current year's capital additions would be added to the opening balance on January 1st, of the next succeeding year.

Exhibit 79 (M.9) pages 18 and 19.

That is all I propose to say so far as the future depreciation is concerned.

Now the next part of my Argument is a comprehensive statement of Operating Costs and their allocation to the various operations.

DOCUMENT MARKED
EXHIBIT 181.

I should say this, sir, that you will note that in most of the estimates that I have made or figures I have quoted I have gone to the end of 1948, and Exhibit 181 has been compiled on that basis. Now I have gone on the assumption, and I do not know just of any specific instance when it came up, but I think there has been a feeling that probably 1948 is as far as the Board would expect or anybody would desire or ask the Board to forecast as to what is going to happen. In other words, I have proceeded on the assumption that at the end of 1948 at least the matter will be checked over.

THE CHAIRMAN: Probably it will be checked up in the interval as a matter of fact.

MR. HARVIE: I sometimes wish we had proceeded on

the same assumption.

MR. CHAMBERS: I think perhaps I should read the first four pages of narrative.

The attached statements and schedules are compiled on the following bases:

(1) An opening rate base, as at January 1st, 1944, of $2,442,207.53, see Schedule 1, Column 8, which includes Hill's valuation (Exhibits 59 and 60), less additional depreciation for obsolescence on the Seaboard plant (Exhibit 120), and less a minor adjustment as to the Girbotol prepaid royalty.

(2) The 1944 rate base has been adjusted (Schedule 3/44) to give effect to 50% of the 1944 (actual) capital additions, less 50% of the 1944 (calculated) depreciation.

(3) For each subsequent year (Schedules 3/45 to 3/48), the remaining 50% of the next preceding year's capital additions has been added and the remaining 50% of the next preceding year's depreciation has been deducted, and then 50% of the current year's additions is added and 50% of the depreciation for the current year deducted.

(4) 50% of the capital additions for the year 1944 (Schedule 3/44, Column 2) is based on the actual expenditure of $359,523.00 for that year as shown on Page 1836 of Volume 23 of the transcript and Exhibit 74, Schedule M-7-A-44, page 2.

(5) 50% of the capital additions for the year 1945 (Schedule 3/45, Column 4) is based on the actual expenditure of $112,079.40 as shown on page 6055 of Volume 74 of the transcript.

(6) The amount of $125,260.00, total capital expenditures for 1946 (Schedule 3/46) represents the capital expenditures

now budgeted for the year instead of $118,600.00 shown on Exhibit 74 (Schedule M-7-A).

(7) That amount of $125,260.00 is then decreased by $39,846.37, which represents a refund received, just recently, from the Dominion of Canada pursuant to a duty and tax claim made in respect of materials incorporated into the subject matter of Madison's rate base. Those were monies that were paid as part of the capital additions at one time by reason of representations and they finally got that amount back.

MR. HARVIE: That refund was in connection with expenditures made in earlier years and not in this particular 125 thousand?

MR. CHAMBERS: Some in 1944 and some prior to 1944.

(8) Schedule 3/46 (Column 4) therefore adds 50% of the difference between $125,260.00 and $39,846.37, or a net amount of $42,706.82 (a like amount, i.e. the remaining 50%, being included in Schedule 3/47, Column 2). That would be the next year.

(9) 50% of the estimated capital additions for the years 1947 and 1948 (Schedules 3/47 and 48, Column 4) is based on the estimates shown in Exhibit 74, Schedules M-7-A, 1945-1948).

(10) Calculation and distribution of annual depreciation is shown on Schedules 2/44 to 48 inclusive and, by way of illustration, are computed as follows in respect of the year 1944:

(a) 1944 Capital Additions:

	100%	50%
Fixed plant (unit basis)	$351,706.20	$175,853.10
Trucks, office equipment, etc. (Straight line)	7,816.80	3,908.40
	$359,523.00	$179,761.50

		100%	50%
(b)	Rate hase January 1, 1944 (Schedule 1, Column 8)		2,442,207.53

Then we take off the part that is not depreciated under this particular heading:

Less:		
Prepaid Girbotol royalty	19,725.84	
Working capital	190,000.00	
Going value	200,000.00	409,725.84
Total Fixed Capital Assets:		2,032,481.69
Less: Assets depreciated on straight line basis:		16,827.37
Depreciated value of assets depreciated on unit method:		2,015,654.32

(c) Rate of depreciation for the year on the unit method:

$$\frac{\text{15,458,237 Mcf. (1944 sales) x 100}}{\text{357,958,237 Mcf.(reserves Jan.1-44}} = 4.31845\%$$

(See: Schedule 5)

(d)

January 1st, 1944, depreciated value of assets:	
Depreciated on unit basis	2,015,654.32
50% of 1944 additions to such assets	175,853.10
	$2,191,507.42
4.31845% of $2,191,507.42 =	$ 94,639.14
Depreciation on assets computed on straight line basis	4,608.03
Total 1944 Depreciation	$ 99,247.17

(Schedule 2/44, Column 6).

THE CHAIRMAN: How many years are you using on the straight line?

MR. CHAMBERS: We use 25% the first year and 20%. . . . I dealt with that a little earlier.

THE CHAIRMAN: But that is only on one item is it not?

MR. CHAMBERS: On the Transportation Equipment.

THE CHAIRMAN: Yes, quite.

MR. CHAMBERS: 25% the first year, 20% for three succeeding years and 15% salvage. That is four years for truck-transportation equipment.

THE CHAIRMAN: Oh yes, but wait a minute, what I am thinking of is this. Was not there a suggestion that your power plant and your water plant be depreciated on a straight line basis and that all your other assets would be on a throughput basis?

MR. CHAMBERS: Was that suggested by Mr. Hamilton?

THE CHAIRMAN: I recollect it was suggested by someone and I rather thought it came from your own company. I might be wrong.

MR. CHAMBERS: I will look into that.

THE CHAIRMAN: This straight line is on your motive equipment.

MR. CHAMBERS: Yes and on the fire truck and on the office equipment. That is all.

(11) The net rate of return is computed at 9½% of the total rate base after allowing for income tax of 40% as an item of expense (Schedules 3/44 to 48 inclusive).

(12) Schedule 4/44 to 48 inclusive sets forth the gross operating costs showing separately:

(i) Direct operating expense.
(ii) Administration
(iii) Depreciation
(iv) Gross return including income tax at 40% - net return 9½%.

(13) Schedule 4/45 to 48 inclusive shows (Columns 7 and 8) internal transfers crediting the two compressor plants and charging south residue lines (serving G.O.R.) and re-

pressure system (Turner Valley) on the basis of horsepower used (no G.O.R. and no repressured gas handled in 1944). (See: Schedule 6).

(14) Schedule 4/44 to 48 inclusive also shows (Column 9) a deduction for charges made to Royalite Absorption Plant, for gathering and compressing, computed on a volumetric basis (See: Schedule 7). For the year 1945, there is also included a charge of $1,050.00 to B.A. Gas Utilities for steam (See: Exhibit 158).

What I have really been referring to are the schedules that support statements 1 and 2. Now we come to the statements.

(15) Statement 1 shows Madison's total costs (from Schedules 4/44 to 4/48 inclusive) which are, by the statement, allocated to the different operations performed by Madison.

(Go to page 6742)

16. The said Statement 1 also gives the net cost, for each such operation, after deducting external charges for specific services performed for others than general market consumers.

17. In addition to the charges to Royalite's Absorption Plant for gathering and compressing gas, referred to under Item 14, Statement 1 shows external charges for steam and electricity supplied by Madison to Royalite and Valley Pipe Line Companies based on that proportion of the total costs for those plants (including administration and capital charges) which the output delivered to those two companies bears to the total output.

18. The said Statement 1 also shows the net cost per Mcf. of sales of scrubbed gas (exclusive of Bow Island gas) for each of the operations.

19. Statement 2 has been compiled to show the net cost to Madison per Mcf. of sales for its services in handling gas from:

   (a) Crude oil wells and gas cap wells directly connected to its system.

   (b) B.A. Gas Utilities,

   (c) Gas and Oil Refineries.

I do not know, sir, that there is much point in my attempting to go through these statements, unless some person would like some questions to be asked and Mr. Smith can probably answer them for me.

THE CHAIRMAN: I take it this is one part of your Argument that you did not prepare.

MR. CHAMBERS: No, all Ican say is that I had something

to do with the general set-up.

THE CHAIRMAN: Well it will be very useful for me, Mr. Chambers, because all I will have to do will be to substitute my own figures in the proper places for those that are there.

MR. CHAMBERS: That is it exactly, that is it exactly.

MR. HARVIE: It would be much simpler if you would accept them.

MR. CHAMBERS: But no matter what the figures are, I do suggest the arrangement or the computation along these lines is not unfair, no matter what way we go about it.

THE CHAIRMAN: I was only joking. I appreciate very much the help which these statements will be to me when I come to attempt to write my decision.

MR. CHAMBERS: Yes, I understand, sir.

MR. HARVIE: I wonder if we might have a couple of minutes adjournment so that we might go through these. I do not think there is anything we want to ask about them but there might be.

THE CHAIRMAN: I would like a short adjournment also, so we will adjourn for 5 minutes.

(A short adjournment was here taken.)

....

(After adjournment)

MR. CHAMBERS: It can/be expected that many questions could be propounded on such short notice but if any of the parties who are interested and who have been following me want any clarifications, if they will get in touch with Mr. Smith we will do everything we can to enlighten them.

MR. HARVIE: During the adjournment I think we got all the information we wanted from Mr. Smith. There were

just two or three items that we wished to ask about.

MR. CHAMBERS: Now, in the next part of my argument, I propose to deal with the Allocation of Madison's Charges. Statement 7 or Part 7 of the Argument which I just distributed, and which is Exhibit 181, shows the revenues which we will require on the basis of my submission, and the next question of course that arises is how those revenues should be realized.

Now Madison has, during the course of the hearing, taken the position that its 1944 operations should not be subject to review or retroactive adjustment by the Board's decision to be now rendered in 1946.

I have noted that the reference to that is in Vol. 28 page 2134.

Now in order that the Board may have the information I would point out that Exhibit 78, which was filed by Kirkpatrick, shows Madison's revenues and expenses for the year 1944.

And the statement that I have presented as part 7 of my argument shows that, on the basis of the submissions I have made, Madison will have required an overall revenue of $4,211,805.21 for the years 1945 to 1948, inclusive, in addition to gas purchases, as follows:

THE CHAIRMAN: Mr. Chambers, are these figures shown in this Exhibit 181?

MR. CHAMBERS: Yes.

THE CHAIRMAN: And where do I find them?

MR. CHAMBERS: Statement 1, page 2. Total Costs 1945 to 1948 inclusive, at the bottom of page 2, statement 1, Column 12.

THE CHAIRMAN: Yes, I have found them.

MR. CHAMBERS: 1945 to 1948 inclusive, and this is the $4,211,805.21, and just so that it will be tabulated in the record I have shown it here in the narrative:

1945	$1,112,824.01	
1946	1,055,714.81	
1947	1,032,570.45	
1948	1,010,695.94	which makes a
total of.......	$4,211,805.21.	

In fixing the just and reasonable rates for its various services or on behalf of the respective parties served, the Board must (in my submission) have regard to the principle of what is a just and reasonable basis of allocation of Madison's total aggregate charges as between those several customers.

And in my submission the acid and basic test is that each class of customer served should contribute its just share to the aggregare total costs of the utility company.

Customers in one class should not be served at the expense of those in other classes.

And in that regard I refer to that part of my opening in the Argument yesterday, where I dealt with the matter of "Discrimination".

Part 1 of Argument (5) Discrimination,

The purpose for which the customer uses, or the profit he makes from the use, of the service he obtains from the utility is, in my view and in my submission, wholly irrelevant in the fixing of the just and reasonable

rate he is to pay for the service.

The use he makes of the service is only of concern to the Board or to the utility insofar as the amount of service taken and the rate at which it is taken affects or bears upon the utility company's costs.

In other words, the basis of fixing just and reasonable rates, as between customers, should be the impact of the various customers' requirements on the utility company's costs.

And I submit that this statement or contention is fortified by the opinions of Mr. Brownie, Mr. Zinder and Mr. R. E. Davies, and it will appear in the transcript the places in the evidence to which I refer:

See Brownie's Evidence,

Vol. 64 pages 5113-5125

Zinder's Evidence,

Vol. 54 pages 4197-4212
Vol. 65 pages 5251-5253
Vol. 65 page 5264,

R. E.Davies' Evidence,

Vol. 68 pages 5515-5520.

It is also a well recognized and established practice, which I submit is based on reason, justice and equity and common sense, that present day customers or consumers should, through their rates, pay something to ensure a future gas supply.

And I again refer to the evidence of R. E. Davies, Mr. Zinder and Professor Stewart:

See the evidence in this regard of:

R. E. Davis,

Vol. 12 pages 942-943
Vol. 68 pages 5493-5501.

Zinder,

Vol. 54 page 4224,
Vol. 54 pages 4272-4275
Vol. 65 page 5256.

Stewart,

Vol. 57 pages 4552-4553,
Vol. 57 pages 4565-4568,
Vol. 56 pages 4424-4425,

And then I also refer to Exhibit 139, which is the Public Utilities Board Order or Judgment in the Gas Company case re charges for Bow Island Storage, dated July 20th, 1931.

Now Dr. Katz recommended that the cost of gathering and compressing stored gas, either for storage in Turner Valley or Bow Island, should be charged in the current price of gas going to market.

This recommendation was, however, predicated on the assumption that the gas stored in Turner Valley would be sold or re-delivered to Madison when produced.

Vol. 69 pages 5717-5722
Vol. 69 pages 5737-5739.

R. E. Davis, who was called by the Gas Company, admitted that if the stored gas was earmarked for the market the present consumers should pay such charges through the current rates.

Vol. 68 page 5503.

And Mr. Zinder's evidence is to the same effect:

Vol. 53 pages 4145-4152.
Vol. 51 pages 4001-4006.
Vol. 54 pages 4272-4273.
Vol. 65 pages 5210-5222.

Now in its Exhibit 99 on the second page, which was filed by Mercer, Royalite has submitted that the

price set for Turner Valley repressured and conserved gas once set should remain constant so it, Royalite, and I am quoting from the Exhibit:

> "may receive neither more nor less than the moneys invested in such repressured and conserved gas plus interest on the moneys so invested, and in order that the sale price for repressured and conserved gas received by the producer plus interest for fifteen years will be neither more nor less than if the producer produced and marketed such gas fifteen years hence."

And again, as I say, I am merely quoting the Exhibit at the moment.

Royalite, both as a producer and an operator of an absorption plant, submits that Madison's costs of gathering and compressing gas to be stored,(either in Turner Valley or elsewhere, as well as all costs of storage in Turner Valley and the costs of scrubbing gas for storage in Bow Island should be absorbed or provided for in the current price or prices payable by Canadian Western for gas delivered to its downstream Madison's scrubbing plant.

And I also submit, sir, that the No. 1 Main Compressor plant costs should be allocated and charged as between storage operations and wet gas gathering operations in the ratio of the estimated horsepower requirements respectively involved in those two operations.

I also submit that a similar method should be used in allocating the No. 3 Compressor Plant costs as between wet gas gathering and G.O.R. residue gas operations.

Exhibit 81 (M12) pages 5 and 6;
Schedule M.12 - C.

Exhibit 83 - Schedule M.14

Vol. 27 page 2103,
Vol. 27 pages 2108-2110,
Vol. 28 pages 2140-2144,
Vol. 29 pages 2228-2229.

(Go to page 6750)

It is my contention that such a basis of allocation reflects, and gives effect to, the impact of the class of service on the utility company's costs.

Royalite further submits that it (as the operator of an absorption plant) should pay and be charged by Madison a just and reasonable price in respect of each of the following services rendered to it by Madison's utility system.

(a) electricity,

(b) steam,

(c) gathering and compressing,

(d) scrubbed gas for consumption in Royalite's offices and houses etc. in the Turner Valley area.

With respect to items (a) electricity, and (b) steam, Royalite submits that it should be charged, and should pay, that proportion of the total cost to Madison of those plants which their output used by, or delivered to, Royalite bears to the total output. See Exhibit 79 - M.9A - 44-48 inclusive.

Kirkpatrick's Evidence: Vol. 28 pages 2155-2157

As regards Madison's wet gas gathering and compression costs Royalite submits that it should be charged not more than that portion thereof which the total volume retained or used by Royalite in its absorption plant bears to the total volume handled by Madison.

The total wet gas gathering costs of Madison for the years 1944 to 1948 are estimated as follows:

Now I think these appear in Part 7 but in any event I have them here and they will appear in the transcript. It is a breakdown showing how these percentages are

arrived at. They are shown on Schedule 7.

STATEMENT SHOWING ALLOCATION OF MADISON'S WET GAS GATHERING AND COMPRESSING CHARGES TO ROYALITE'S ABSORPTION PLANT ON VOLUMETRIC BASIS - 1944 - 1948 inclusive -

	Total Volume	Volume to Royalite Plant m.c.f.	Percentage %	Total Costs	Royalite's Share	Costs per m.c.f.
1945	18,759,761	3,267,972	17.42	$552,359.63	$96,221.04	2.94¢
1946	17,816,000	2,238,000	12.56	523,186.93	65,722.74	2.93
1947	16,623,000	2,116,000	12.73	505,677,51	64,367.69	3.04
1948	15,183.000	1,968,000	12.96	499,824.51	64,787.25	3.29
	68,381,761	9,589,972	14.02	$2,081,048.58	$291,098.72	3.043¢

Or a weighted average of 3.043 cents for the period.

Exhibit 81 - Schedule M 12 D page 1.

Exhibit 100 - revised WSchedule.

The above volumes differ from those in Exhibits 81 and 100 by reason of the recent revision in the estimated market requirements for the years 1945 to 1948. There is a slight change.

The foregoing amounts allocated to the Royalite plant include drilling fuel residue gas (gathered by Madison) retained by Royalite and returned to north end producers via Royalite's north return fuel line.

They also include all volumes retained by or lost in Royalite's absorption plant. Now Royalite submits that:

1. It, as the owner of the absorption plant, is one of the customers of, and a member of the public deriving a service from, Madison's public utility wet gas gathering system in the delivery to it of that volume of natural gas represented by:

(a) absorption plant vapours,

(b) natural gasoline that is extracted in the plant,

(c) the proportion of boiler and electric plant fuel represented by the ratio of the output of those plants taken by Royalite,

(d) drilling fuel gas returned to the field.

2. That the charge by Madison to Royalite for that service should be on that volume at Madison's average per m.c.f. overall gathering costs.

Exhibits 98 and 100,
Vol. 44 pages 3426-3429.

I therefore submit that the just and reasonable charge (which is also practical in operation) to be made by Madison to Royalite throughout the years 1945 to 1948 (inclusive) should be 3.1 cents per m.c.f. or an estimated total of $297,289.13 for the period. In other words I have taken the quantity for the period of 9,589,972 multiplied it by 3.1, which is a small fraction over the average of 3.04.

3.1¢ x 9,589,972 = $297,289.13.

Zinder, Vol. 54 pages 4212-4214,
Vol. 54 pages 4234-4235.

I submit that on that basis Royalite is assuming more than its fair share of the utility company's aggregate gathering and compressing costs for these reasons:-

(1) the gas gathering system is primarily designed and operated to take care of the maximum demands of a fluctuating, and poor load factor, dry gas market.

Stevens Guille:

Vol. 24 pages 1914-1932,
Vol. 25 page 1945,
Vol. 25 pages 2004-2008,
Vol. 43 pages 3325-3346,
Vol. 44 pages 3437-3442.

The Madison gathering system (which serves Royalite's plant) is designed to carry the full Calgary load

without assistance from the south end.

Vol. 44 pages 3424-3426,
Vol. 44 pages 3433-3434,
Vol. 44 page 3444,
Vol. 45 pages 3532-3533,
Vol. 68 pages 5530-5532,

The compressor equipment has also been designed to take care of the Gas Company's requirements.

Vol. 45 page 3507.

(2) Royalite's absorption costs are themselves increased by reason of the fact that the plant's capacity is dictated by, and its operating costs dependent on, to some extent, the necessities and fluctuations of the dry gas market.

Vol. 54 pages 4222-4224,
Vol. 58 pages 5530-5532,

(3) The poorer the load factor of the market or of the load, the greater the investment and also the operating costs.

Zinder:

Vol. 54 pages 4210-4212,
Vol. 54 pages 4214-4221,

(4) Royalite's absorption plant supply is not substantially increased by new gathering installations.

R. E. Davis:

Vol. 12 pages 939-940,

Zinder:

Vol. 54 pages 4221-4222,

(5) Royalite is delaying or postponing production of its gas cap gas with the result that its absorption plant will not obtain its richer gas cap gasoline content until later years,

Vol. 44 page 3426,
Vol. 45 pages 3488-3495,
Vol. 45 pages 3527-3528,
Vol. 54 pages 4258.

THE CHAIRMAN: Does the low market factor affect you very greatly ?

MR. CHAMBERS: The poor load.

THE CHAIRMAN: Is not the excess gas put back into the ground, the absorption gasoline is taken out ?

MR. CHAMBERS: But as I understand it the entire gas system is not used to capacity and it is designed and only used to capacity when the market is at its peak.

THE CHAIRMAN: But the ultimate result is only affected today as compared with two years ago to the extent that B. A. is now entering the Calgary market ?

MR. CHAMBERS: Well no sir, what I am driving at is this, that if we had a straight absorption plant proposition.

THE CHAIRMAN: I get your point there Mr. Chambers, that you have a system which geared to the peak load market demand -

MR. CHAMBERS: Yes, that is right.

THE CHAIRMAN: Whereas if you do not have that you would have geared your plant on a different basis.

MR. CHAMBERS: That is right.

THE CHAIRMAN: But in the ultimate result you are only affected today as compared with two years ago to the extent that B. A. is in the market ?

MR. CHAMBERS: That is right, absolutely, but what I want to illustrate is this, that assuming there was no dry gas market and that the gas was gathered purely for the purpose of taking gasoline out of it we would have a different system altogether and would not have to worry about peak loads and we could run on an even load throughout the year and if anything did break down for a day it would only be a day's operation.

THE CHAIRMAN: But I cannot help thinking of your position

today as compared with two years ago.

MR. CHAMBERS: Oh yes but what I say is the difference is this, now we are under a different set of rules. We are allocating costs as between members of the public. That was the next point that I was going to refer to, the one you mentioned.

(6) The statute has, by its application, decreased the rate of Royalite's absorption plant throughput.

Zinder recommends the volumetric basis as fair and states that that method is used in U. S. A.

Vol. 65 pages 5222-5227.

And he admits that, on that basis, Royalite's absorption plant is bearing a portion of Madison's costs for providing continuity of service to the dry gas market.

Vol. 65 pages 5253-5255.

Ralph Davis admits that Madison's unit gathering costs are not increased merely because of the wet content in the gas.

Vol. 68 page 5521.

He also admitted that different utility customers obtaining the same service should pay equal portions of the utility company's costs.

Vol. 68 pages 5519-5520.

Fixing the charge for gathering to Royalite's absorption plant on the straight volumetric basis is more than fair to the other parties in that, on that basis, Royalite is bearing a substantial part of the peak load or demand charges for which it is in no way responsible.

Zinder:

Vol. 54 pages 4222-4224,
Vol. 54 page 4234,
Vol. 65 pages 5253-5255.

Now the suggestion has been advanced that the absorption plants should be ordered by the Board to buy or pay for all the gas gathered and delivered to those plants (such price to include all the gathering charges) and that the Board should then require those plants to sell the un-scrubbed residue gas downstream the absorption plants) as a by-product at a price which would not include or cover the proportionate volumetric gathering costs in respect of that quantity.

I cannot put my finger on the record but there was some suggestion as that.

In the first place, it is my very definite contention that the Board is not empowered by the statute and the statute does not contemplate that the Board should require an absorption plant operator to purchase any natural gas - either in the state it is produced, wet, dry or otherwise.

And that by section 71 (1) the Board may order the well owner to sell and deliver and the pipe line and/or scrubbing plant proprietor (that is the utility company) to purchase and take delivery of natural gas.

The subsection does not, in my submission, nor does any other provision of the Act provide or contemplate either natural wet gas or residue gas being purchased by an absorption plant either by the Board's direction or otherwise.

Section 71 (4) does empower the Board to require an absorption plant operator and I quote from the Act:-

"which has in .....its possession or under.....its control natural gas, the property of the producer or..... in which.....it has a proprietory interest, to sell and deliver such natural gas......to the.....corporation designated by the Board at the prices fixed by the Board."

The Board's power to fix such prices in that regard is to be found in section 72(1). But Clause (a) of that subsection makes it clear that the well-head price to be paid to the producer is for residue gas only.

While clause (b) of the same sub-section empowers the Board to fix the residue gas price downstream the absorption plant it is obvious that so far as the owner of the absorption plant is concerned, such price can only apply to the residue gas which it (the absorption plant) owns.

If the absorption plant owner desires to acquire such residue gas its purchase price is also controlled by the Board.

Section 72 (1) (f) on the other hand it is specifically provided empowers the Board to fix the just and reasonable prices to be paid for all services over which the Board has jurisdiction.

This obviously, among other things, extends to services rendered by the gas gathering utility company for any service rendered by it to any member of the public, including the absorption plant operator.

Section 50 also gives the Board authority over prices for all utility services.

Secondly, I submit that, assuming the Board having fixed the price of residue gas, as at the well head, can then as its next step, I am assuming that, merely fix the price of such residue gas downstream the absorption plant it must do so on a public utility basis.

In other words, it is my contention that in following that method it must, in order to arrive at a price that is just and reasonable as between:

(a) the utility company and its customers as a whole,
(b) the well owner and the absorption plant operator,
(c) the well owner and the consumer,
(d) the absorption plant operator and the consumer,

all these are in the picture, if the Board is going to deal justly and reasonably between all these parties, ascertain and allocate, without discrimination, the gathering and compression costs as between those parties.

In other words, in my view, discrimination either direct or indirect must be avoided.

In that regard I also refer to section 74 of the statute as well as to section 52, which I submit are applicable to this gas gathering system.

If the absorption plant operator should buy both the residue gas and the wet content at the well head and pay all the gathering charges the price at which it should sell the residue gas downstream its plant must, I submit, provide for the well head residue gas price and the plant's out-of-pocket expenses for the fair share of the utility's transportation of that volume of residue gas.

In other words, my contention is this, Sir, that when an owner of gas, be he well owner, absorption plant operator

or utility company, is by statute compelled to deal with his gas in a specific way and at prices to be dictated to him, he must be fully compensated therefor and that discrimination, either direct or indirect, cannot be practiced against him, either with the sanction of the Board or otherwise.

I therefore submit and ask that the Board should not, either directly or indirectly, charge or assess to Royalite's absorption plant more than that portion of Madison's total gathering and compression charges which is represented by the ratio that the volume retained or used by Royalite's plant bears to the total volume gathered.

It should be borne in mind that the absorption plant is already committed to pay, for the privilege of extracting the gasoline content, at least 20% of its gross realization therefrom.

The volumetric basis of allocating utility costs with respect to natural gas is not a novel one but is recognized by American tribunals and courts as being fair, just and reasonable and non-discriminatory.

I refer to

Colorado Interstate Gas Co. v. F.P.C.

<u>Canadian River Gas Co. v. F.P.C.</u>
(1945) 58 P.U.R. (N.S.) 65 (U.S.S.C.)

By the Federal Natural Gas Act the Federal Power Commission:

(a) was authorized to control costs of, and charges for, transportation of natural gas interstate,

(b) it was not authorized to deal with or regulate transportation etc. intrastate.

The companies were engaged in, and substantial

portions of their systems were common to, both types of business, and the Federal Power Commission, which was dealing with interstate, allocated or apportioned the costs as follows:-

(a) the production system costs, including rate of return and depreciation and depletion of wells and leases, were divided on the volumetric basis,

(b) the transmission or transportation costs were divided:
 (i) partly on the volumetric basis, and
 (ii) partly on a capacity basis, i.e. the volumetric method was applied and allocated on a peak load day of the year.

In other words, the extent to which the peak capacity of the transportation system was allocated on the basis of allocating to the party the greater charge who caused the greater demand on the system. Now, I say my suggestion, insofar as Royalite is concerned, is eminently fair because the absorption plant, as an absorption plant operator, is not drawing the demand on the system, but rather the residue gas for market.

Now, in the Canadian River case, the United States Supreme Court refused to disturb the above method adopted by the Commission.

And there was another case before the Federal Power Commission,

Re Interstate Natural Gas Co.
(1943) 48 P.U.R. (N.S.)267 (F.P.C.)

The Commission in allocating costs as between regulated and unregulated phases of the company's operations classified, and I quote,

"costs relating to the production or to the purchase of gas....including the operation of field lines..... as volume or commodity costs only."

and stated, page 280:

"gas in and very near the fields almost invariably sells on a straight thousand cubic feet basis. Demand charges for such gas are not exacted."

and then said:-

"the transportation and delivery costs which are associated with demand are allocated in proper to each customer's responsibility for the peak-day demand for gas.. The transportation and delivery costs which are associated are allocated in proportion to the volume.....of gas sold to each customer."

And again as to the question of discrimination which I urge strongly is a matter to be kept in mind in dealing with this phase of the Hearing, I would refer to the

Western Union Telegraph Co. v. Call Publishing Co.
(1901) 181 U.S. 92,
46 L.ed. 765,

Mr. Justice Brewer at page 769 says this:

"Common carriers whether engaged in interstate commerce or in that wholly within the state, are performing a public service. They are endowed by the state with some of its sovereign powers, such as the right of eminent domain, and so endowed by reason of the public service they render. As a consequence of this, all individuals have equal rights both in respect to service and charges......that principle of equality does

"forbid any difference in charge which is not based upon difference in service, and, even when based upon difference in service, must have some reasonable relation to the amount of difference, and cannot be so great as to produce an unjust discrimination."

And Mr. Justice Brewer stated that the foregoing was part of the common law of the United States.

I refer to a more recent decision in

Railroad Commission v. Houston Chamber of Commerce,
(1935) 78 S.W. (2d) 591 (Tex. Comm.App.)

The legislature, in creating the commission and vesting it with power to make and regulate rates, did not intend to confer upon it authority to make discriminations for the purpose of off-setting natural and other advantages possessed by localities and individuals.

And there is also the

Galveston Chamber of Commerce v. Railroad Commission.
(1911) 137 S.W. 737 (Tex.Civ.App.)

And another case,

Crancer v. Lowden
(1941) 121 Fed. (2d) 645 (U.S. C.C.A.).

I have given the actual citations to the reporters.

One rate should not be applied to the shipment of an article to be used for one purpose and another rate to be applied to the shipment of the same article when it is to be used for another purpose.

And then

New York State Electric & Gas Co. case,
(1934) 6 P.U.R. (N.S.) 113 (N.Y.)

Rates should not arbitrarily differentiate on the basis of the purpose for which electricity is used.

And to the same effect the

Missouri Pacific Ry. Co. v. Larabee Flour Mills Co.
(1908) 211 U.S. 612;
53 L.ed. 352.

A common carrier is bound to treat all shippers alike and can be compelled to do so by mandamus, irrespective of any statute or administrative board.

And there is also a statement in the

Nash-Public Utility Rate Structures (1933) page 9,

and I have another decision in the

Arkansas Power & Light Co. v. McGehee et al
(1942) 42 P.U.R. (N.S.) 65 (Ark.)

The utility was engaged principally in the electric business in 55 counties but in the City of McGehee it was also in the gas, water and ice business and also operated a few packing plants.

The Commission said that at page 68:

"The company does much of this allocation on the basis of gross revenue, without regard to cost of service. Where, as here, a high cost of gas at the City gate causes high operating expenses, such a basis results in allocated expense items out of proportion to cost of service."

The Commission further held that the pipe line investment which was treated as a unit devoted to the service of three municipalities should be allocated between them in proportion to peak demands.

The Commission cited in support another case, which also went to the United States Supreme Court:

Arkansas Louisiana Gas Co. v. Texarkana.
(1936) 17 P.U.R. (N.S.) 241; (Ark.)
(1938) 24 P.U.R. (N.S.) 267 (D.C.C.A.)
(1938) 305 U.S. 606; 83 L.ed. 385

Now I would like to refer, Sir, to a case in the Court of Appeal in England, and in the questions which I put to Mr. Brownie and Mr.Zinder I based them on what was said in this judgment. The case is the

Attorney General v. Hackney Borough Council (1918) 87 L.J.Ch. 122 (C.A.)

The Electric Lighting Act, 1882, 45 & 46 Vict. ch.56, provided as follows:-

Section 19:

> "Where a supply of electricity is provided in any part of an area for private purposes, then except insofar as is otherwise provided by the terms of the licence, order, or Special Act authorizing such supply, every company or person within that part of the area shall, on application, be entitled to supply on the same terms on which any other company or person in such part of the area is entitled under similar circumstances to a corresponding supply."

And then Section 20 said:

> "The undertakers ahall not, in making any agreements for a supply of electricity, show any undue preference to any local authority, company or person......."

Now the undertakers charged a less rate for electricity used for power than electricity used for lighting, but power customers were allowed to use 20% of the supply for lighting their factories.

It was alleged that this practice was a breach of the said sections 19 and 20 in that power customers were provided with current for light at a cheaper rate than light customers.

The Court dismissed the complaint and held that:

(a) as a general rule, a power customer, (although using part of his supply for light) had a better load factor and more favourably affected the diversity factor of the power station than a light customer only, and

(b) therefore he was not taking a "corresponding supply under similar circumstances"

in the meaning of the section,

"to a light customer under section 19, and

(c) there was no undue preference of the power customer over the light customer within the meaning of section 20.

(Go to page 6766.).

Swinfin Eady, L.J. at 125

"In approaching the consideration of the matter in dispute, it must be borne in mind that customers affect the central supply station differently according to the different circumstances under which they take current. The purpose for which current is taken is immaterial except so far as the station is affected by the amount taken, and the circumstances under which it is taken."

"An ideally perfect customer would be one whose maximum demand on the station was also his minimum, and whose load remained constant, and endured for each hour of the twenty-four, and throughout the whole year 8,760 hours.......The proportion which the number of units actually sold to any customer during the year bears to the number of units which would have been sold to him if his maximum demand had remained constant throughout the year, is the 'load factor' of the customer for that year."

Then he goes on to say:

"The plant must be capable of meeting the maximum demand upon it at any moment of the twenty-four hours, and the less the demands made by different customers synchronize, and the more evenly the aggregate demand of customers is spread over the twenty-four hours, the smaller will be the size of the plant required to meet the maximum demand. What is termed the 'diversity factor' is the proportion which the sum of the customer's maximum load bears to the load actually observed at the station, and this depends upon how far the demands of the customers

"are coincident; the less consumers' demands coincide, the better for the station."

"Speaking generally, it is agreed that customers for power have a better load factor, and more favorably affect the diversity power of the station than customers for light. Their load factor is better as the number of units consumed by them bears a higher ratio to their maximum demands."

Then he goes on:

"It is essential to bear in mind the effect of load factor and diversity factor on the working of an electric undertaking when considering the scale of charges."

See also: Part I (5) pages 39 et seq. of argument.

Now I submit, sir, in the light of that, that this Royalite Absorption Plant is the ideal customer from the standpoint of the utility company because it says:

"We will adjust our load to whatever the dry gas market happens to be."

Now as to scrubbing costs it is necessary, I submit, that Madison's unit scrubbing costs be separately ascertained for the reason that:

(a) the Royalite absorption plant should not properly be chargeable with any of Madison's costs in respect thereof, and

(b) Madison's overall net revenues should not be lessened by reason of any gas being treated therein at less than the per unit rate.

Summarizing this phase of my argument, I submit that Madison's over-all revenues should be realized

as follows: - by the way I should say this, in the scrubbing costs we have dealt with it in Part 7 and I do not propose to deal with it further now, but summarizing part of my argument deals with how these costs should be allocated and I am submitting that:

(1) Royalite should pay:

(a) that proportion of the gathering costs computed by the volumetric method - using the volume:

(i) drilling fuel.

(ii) the content removed or retained or lost in the absorption plant,

(iii) the proportion of boiler and electric plant fuel represented by the output of those plants taken by Royalite.

(b) That Royalite should also pay the proportion of the boiler and electric plant costs which Royalite's supply therefrom bears to the total output of those plants.

(2) In respect of Bow Island gas delivered to it Canadian Western should either pay a specific amount per m.c.f. to be applied on account of Madison's scrubbing and other handling charges, or

(3) The remaining revenue required by Madison in respect of its operations should be realized from the scrubbed gas delivered and sold by it for market or immediate consumption to:

(a) Canadian Western

(b) Valley Gas Company

(c) Valley Pipe Line Company,

(d) Royalite for use in its offices and houses at Turner Valley,

and that such gas should be charged to, and paid for, by all of these parties at the same rate per m.c.f. downstream Madison's scrubber.

According to the statement which I have presented it is estimated that Royalite should be charged for its share of:

(i) boiler plant costs,

(ii) electric plant costs,

(including depreciation administration and return) for the years 1945 to 1948, as follows:

	boiler plant	electric plant
1945	62,886.87	39,052.13
1946	62,282.90	38,840.31
1947	59,556.99	36,715.39
1948	57,945.94	37,298.85
	242,672.70	151,906.68
	151,906.68	
	$394,579.38	

I therefore submit that Madison's over-all revenue required to meet its costs for the years 1945 to 1948 should be realized as follows:

Over-all revenue required	$4,211,805.21
Less gathering and compressing charge to Royalite absorption plant	291,098.72
	3,920,706.49
Less boiler and electric plant charges to Royalite	394,579.38
	3,526,127.11
Less 1945 revenue from B.A. for steam	1,050.00
Remaining Revenue required re 1945 to 1948	3,525,077.11

By its interim Order No. 9 dated January 5th, 1945, the Board provided that, to the extent that Madison's revenues should (pending the Board's final decision as to new rates) fall below the amount which Madison would have been entitled to receive had the terms of the Board's final decision (as to return, depreciation etc.) been known, the amount of such deficit,

"shall be capitalized and added to its rate base".

Section 35a of The Natural Gas Utilities Act, as amended 1945 ch. 31 by subsection (3) directs the Board in its final decision or order to provide for such adjustment.

I have made up some theoretical figures but I do not see any point in it because we do not know yet when the cut-off date is, sir, but I can probably give this just as an illustration, that is all.

Assuming that the Board's final decision were being made or had been made so as to have the new rates effective as at May 1st, 1946, to take care of:

(a) Madison's deficit from January 1st, 1945 to April 30th, 1946, by amortizing the same by the end of 1948, and

(b) Madison's full costs as from May 1st, 1946,

and on the submissions that I have made, such decision or final order would have to provide a revenue to Madison of 6.7897708 cents for each and every m.c.f. of scrubbed gas sales from May 1st, 1946, to December 31st, 1948, as follows: Here is how I arrive at it.

Remaining Revenue required re 1945 to 1948 (see page 20 supra)	$3,525,077.11.

Those are the figures I have just given a few minutes ago.

Less actual revenue received from 1945 sales	1,204,972.19
	$2,320,114.92
Add 1945 gas purchases in respect to which we paid money out	444,440.21
	$2,764,555.13
Less actual revenue received from 4 mos. 1946 sales	455,532.16
	$2,309,022.97
Add 4 mos. 1946 gas purchases	167,252.21
Revenue required by Madison for its own costs (exclusive of purchases) May 1946 to Dec. 1948	$2,576,275.18.

Gas sales May 1/46 to December 31st, 1948 (exclusive of Bow Island), as I compute it, 37,943,478 m.c.f. as follows:

1945 to 1948 estimated		60,639,371 m.c.f.
1945 sales	16,509,471	
1946 - 4 mos. sales	6,186,422	22,695,893
		37,943,478

(See page 9 Argument Part II)

$$\frac{\$2,576,275.18}{37,943,478} = 6.7897708¢$$

THE CHAIRMAN: To which will be added the wellhead price.

MR. CHAMBERS: Yes. Now, sir, I think the way the balance of my Argument is that I could finish early tomorrow morning. I might finish before noon. I say that for the benefit of those who will follow.

THE CHAIRMAN: All right, we will adjourn until 10 o'clock.

(At this state the Hearting was adjourned until 10 A.M? 12th June, 1946.)

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